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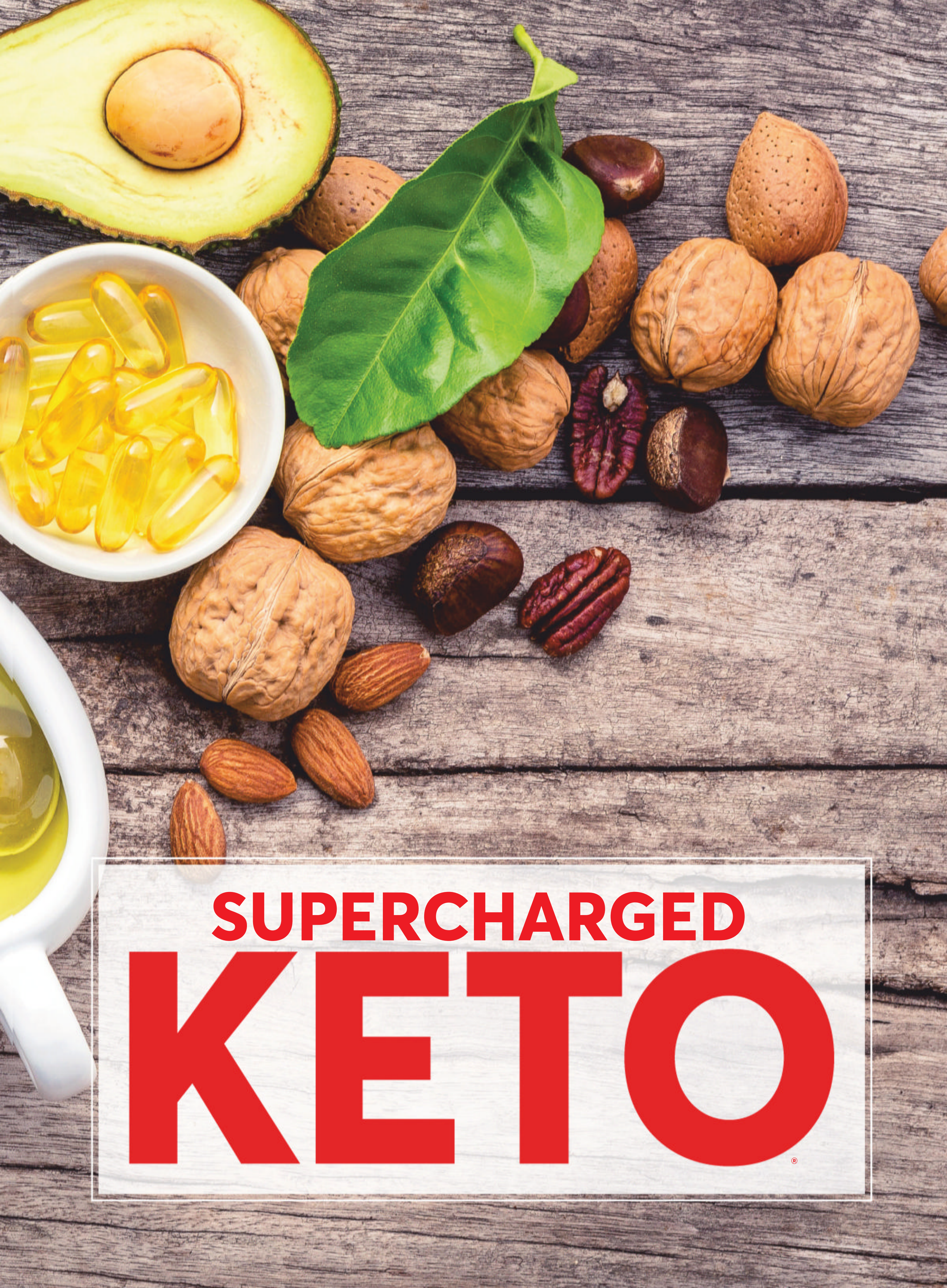

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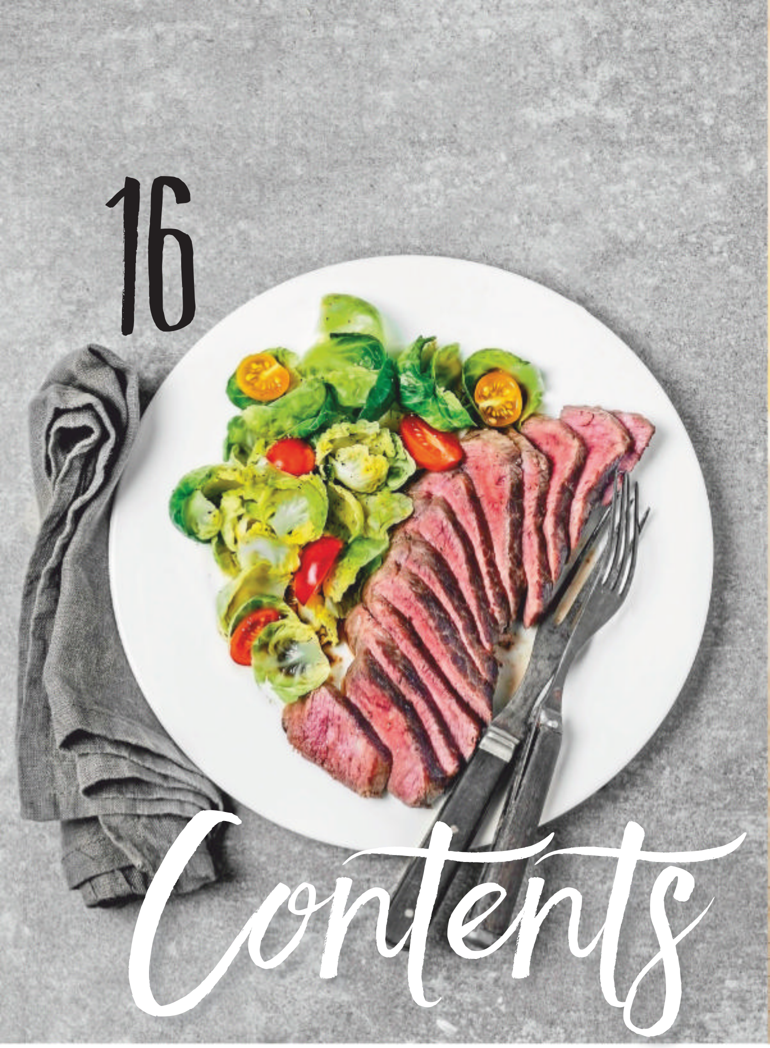

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H_2O IS KEY TO KETO

Information in *Supercharged Keto* is provided for awareness, education and general information. Health benefits of various diets, foods and weight-loss strategies are the opinion of the author, and there may be differing views on many of the topics covered, including evolving research, opinions, benefits and efficacy. This magazine is meant to inform the general reader and is not a substitute for medical advice by a physician, dietitian and/or nutritionist. Please consult a doctor if you have chronic ailments or feel adverse side effects after starting a nutrition regimen, and do not ingest items to which you have sensitivities or may be allergic. Readers should consult a licensed health professional who knows their personal medical history on matters relating to their health and well-being, including being aware of potential interactions with medications they are taking and conflicts with other wellness-related goals.

THE KETO

The Basics of

EDGE

Getting Started

Keto, Explained

The inside story of the ketogenic diet—what it is, how it works and whether it's right for you.

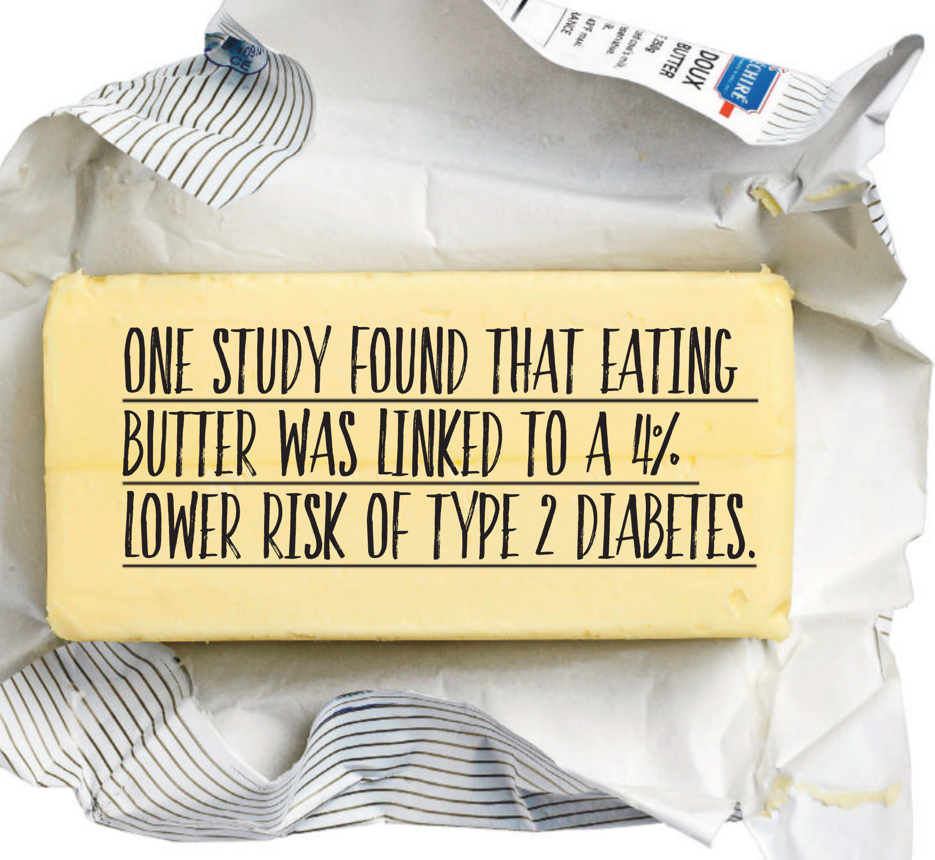
FATTY CUTS, LIKE RIB EYE, ARE GOOD (AND DELICIOUS!) KETO CHOICES. OTHER WINNERS: SKIRT STEAK AND NEW YORK STRIP.

If your goal is to lose weight, gain energy and improve your health, look no further than the keto diet. You certainly won't be alone. Keto has skyrocketed in popularity over the past few years and remains one of the hottest diets on the planet. In 2020, "keto" was the most Googled food-related topic in the world with 25.4 million searches, according to market researchers Bolst Global. Scientists have taken notice too: More than 2,500 studies on ketogenic diets have been uploaded to the PubMed database, run by the National Institutes of Health, since 2017.

Why is it so popular? First, while the word *diet* suggests weight loss, there are so many other possible benefits of keto that it may be more apt to think of it as an eating plan. A meta-analysis of 13 studies in the *British Journal of Nutrition* found that a keto diet lowered blood pressure and triglycerides while increasing "good" HDL cholesterol. Other studies have suggested keto benefits for brain function, insulin and blood glucose control; reducing conditions like acne and migraines; and even possibly an ability to fight cancer. Some researchers, however, have cautioned, "Not so fast." Here's a breakdown of what you need to know, including the basic keto rules, how it works in your body and potential drawbacks.

A Dietary U-Turn

Someone waking up from an Austin Powers–style, decades-long cryogenic sleep would be astonished to learn about keto. Not very long ago, the opposite of keto—a low-fat, higher-carb diet—was being extolled as the safest, healthiest life-extending plan. "For decades, we were told that fat is detrimental to our health," says Andreas Eenfeldt, M.D., founder of the Diet Doctor program. "Meanwhile, low-fat 'diet' products, many of them full of sugar, flooded supermarket shelves. What happened then was that



ONE STUDY FOUND THAT EATING BUTTER WAS LINKED TO A 4% LOWER RISK OF TYPE 2 DIABETES.

obesity rates tripled over just one generation and the rates of diabetes skyrocketed."

Why did this happen, even while the U.S. government dietary recommendations advised people to embrace carbs and avoid fats? It's not that complicated, says Eenfeldt. "In hindsight, the problem was clear—if you eat a lot less fat, you will eat more carbohydrates. That makes your blood sugar go up, along with the fat-storing hormone insulin." Together, those induce a blood sugar roller coaster, he explains, where you feel hungry soon after your blood sugar spikes, so you eat more carbs and go through the whole process again. Meanwhile, insulin is cuing your body to store those calories as fat. And when your pancreas tires of making so much insulin, you develop type 2 diabetes.

When you eat more fat, on the other hand, the opposite happens: Blood sugar stabilizes and fats are processed slowly enough by your body that you feel satiated for much longer after eating. That's where keto comes in. In Eenfeldt's native Sweden, a low-carb, high-fat diet—essentially, the keto model—became widely popular around 2008, after government scientists announced that it was scientifically proven to work, and appeared safe. Sweden's growing obesity rates leveled off, and in the past decade, heart disease has declined in proportion to the increase in butter consumption. "It works," says Eenfeldt. But how?

The Diet's Inner Workings

Glucose is the go-to energy source for your body, including your muscles, organs and brain. It's easily broken down, largely from carbohydrate foods that are released into the blood, then gobbled up as "food." When you deprive your body of carbs, though—on keto, you usually eat fewer than 50 grams a day, or about the amount in an English muffin plus an apple—a backup plan kicks in, explains neuroscientist Shelly Fan, Ph.D. "If we didn't have that, the human race would have disappeared a long time ago," she says. "What happens is that your liver starts breaking down fats to make them into an alternate form of fuel called ketone bodies, which can be used in place of glucose." This process is called ketosis.

Ketones are especially critical for the brain, a greedy organ that consumes about 20 percent of the body's calories per day, even though it accounts for only 2 percent of the body's mass. Most of your body, including your muscles, can run directly on fat; but the brain can refuel only on either glucose or ketones. "Some types of ketones may be even more efficient as fuel than glucose," says Fan. "A ketogenic diet increases the number of mitochondria, the 'energy factories' in brain cells." This may account for the feelings of vigor and mental clarity that some keto followers describe, as well as a more robust metabolic rate. A recent study in *The BMJ* showed that dieters on a very low-carb regimen had increased energy expenditure—aka a faster metabolism—than those following higher-carb plans.

At the same time, when your body is using fat and ketones as fuel in place of glucose, your level of insulin falls, says Eenfeldt. It's not being called into action to regulate your blood sugar, because you're not going through the constant carb-fueled rise and fall. "Insulin is engineered to store fat, so when it goes down, your fat burning goes up," Eenfeldt explains. "This is great if you're trying to lose weight, but there are also other, less obvious benefits, like less hunger and a steady supply of energy." A large meta-analysis of 17 different studies that compared low-carb diets to low-fat ones has shown that the low-carb dieters lost significantly more weight—and, as a bonus, had a lower risk of cardiovascular disease.

Keto in Real Life

So how do you get to ketosis? The standard keto plan calls for keeping carb intake to 5 to 10 percent of calories (between 20 and 50 grams per day), raising fat intake to 75 percent and taking in 15 to 20 percent protein. One reason for emphasizing fat over protein is that your body is able to convert any excess protein to sugar in the blood. Most plans don't call for calorie counting, just for adjusting your diet composition—a plus for many dieters weary of calculating the value of every bite.

There are plenty of other reasons for keto's popularity, says Laguna Beach, California-based functional nutritionist Kendra Whitmire. "Most people see weight-loss results quickly, which is very motivating. Other diets may give similar results but in six months rather than three. And people love structure—being told exactly what's okay to eat and what's not." There are also subtle psychological advantages, Whitmire explains. "Many fatty foods are very tasty and things that people want to eat, like steak and cheese, so you don't feel like you're 'missing out' when you're doing keto. At the same time, you're having to really notice what you're eating in order to avoid carbs, and anytime you're paying close attention to what you're taking in, it changes your eating habits and you tend to eat less."

Whitmire also points out a few caveats about the keto lifestyle. "We don't yet know the impact of keto on the microbiome, the world of bacteria that lives in your digestive system and has all kinds of effects on your general health," she says. "The microbiome really likes fiber and other things that are in healthy carbohydrate foods, and if you're not careful, your fiber intake on keto can go down."

That's why many keto dieters decide to take probiotic supplements to make sure their microbiome stays in balance. Look for pills with Lactobacillus GG, the most clinically studied probiotic strain, which has been shown to support your digestive system and overall immune health. Add fiber to your diet in a keto-friendly way with psyllium husk or ground flaxseed; you can use them in recipes or take them in pill form. Bonus: They can help with digestive issues such as constipation.

Fruits and veggies also have many important plant nutrients like flavonoids and antioxidants, Whitmire adds. Since some of these (for example, most fruits and starchy vegetables like sweet potatoes and beets) aren't allowed on keto, make sure your vegetable choices are chock-full of nutrients, including cruciferous veggies like Brussels sprouts, broccoli, cauliflower and bok choy. A daily multivitamin can also help you cover your micronutrient bases.

Another way to look at keto is as a great jump-start for losing weight, gaining energy and staving off cardiovascular disease and diabetes.

"I see it as a tool in my toolbox in working with clients," says Whitmire. "It can be a therapeutic diet you might do for a few months or a year," you may "cycle" on and off it, or you can stay on it for life. No matter how you do it, chances are you will drop some pounds and reap its many health benefits. In any case, make sure you get the green light from your doctor first, as keto is such a radical change from the standard American diet.

EAT THESE...

MEAT

Unprocessed, organic and grass-fed are best. Be more sparing with processed meats, like bacon, and deli meats, like salami, as there are health concerns about cured meats and nitrites.

POULTRY

Look for organic and free-range, if available.

FISH AND SEAFOOD

Wild-caught is best, as are fatty fish, like salmon.

EGGS

Organic and free-range or pastured are optimal.

FULL-FAT CHEESE AND DAIRY

Butter, high-fat cheese and heavy cream are all good. Low-fat dairy is too high in carbs.

NUTS AND SEEDS

Be moderate with nuts, as you can easily snack on too many and slow your weight loss.

LOW-CARB VEGETABLES

Look for those that grow above ground. Good choices are leafy greens, cabbage, cauliflower, broccoli and zucchini.

NOT THESE...

GRAINS

Both whole and refined: wheat, rice, pasta, breads

SUGARY FOODS

Candy, soft drinks, cookies, doughnuts

STARCHY VEGETABLES

The "below-ground" veggies, like potatoes, beets, carrots, rutabaga

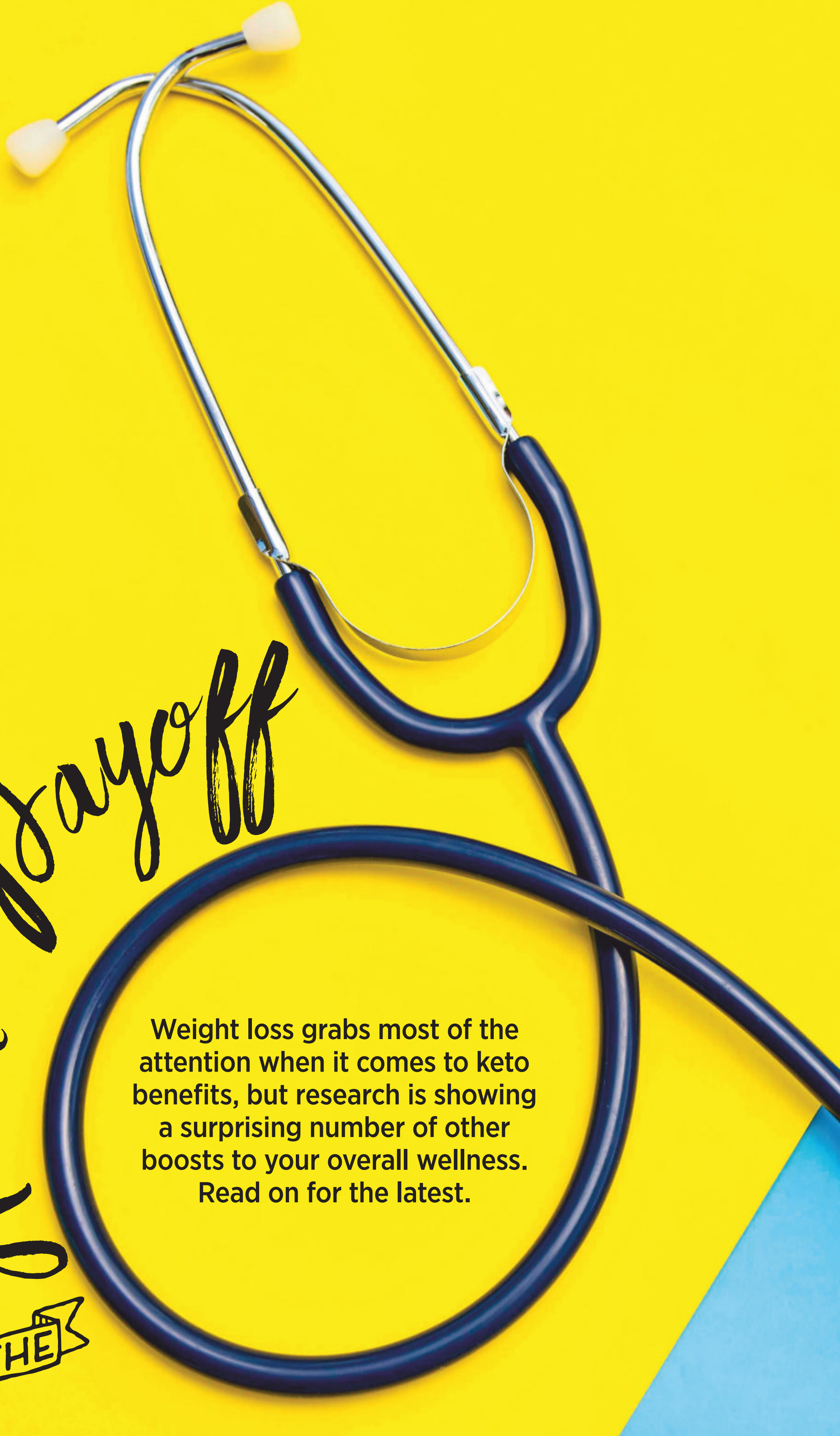
LEGUMES

Beans have protein but are also starchy.

FRUITS

Most are too high in carbs, like bananas and apples, though berries, occasionally, are fine.

THE Health Payoff



Weight loss grabs most of the attention when it comes to keto benefits, but research is showing a surprising number of other boosts to your overall wellness. Read on for the latest.

HIGH BLOOD PRESSURE? BAD CHOLESTEROL NUMBERS? DISCOVER THE INTERNAL, LESS VISIBLE REASONS FOR TRYING KETO.

Keto brags and "before/after" photos on Instagram tend to focus on the diet's most visible effect: It helps most people lose weight, usually without feeling hungry or deprived. The Harvard School of Public Health has posited several mechanisms for the weight loss, including the satiating effect of consuming so much fat; a decrease in appetite-stimulating hormones, like insulin and ghrelin; and a faster metabolism from the work of breaking down fats into a fuel source. That's beginning to look like the tip of the iceberg though, as doctors and researchers sit up and take notice of the other ways a ketogenic lifestyle may promote health. So far, evidence is pointing to keto's impact on the following issues and ailments.

Metabolic Syndrome and Type 2 Diabetes

Both of these related conditions have been surging in the U.S., and they appear to be countered by keto. Metabolic syndrome, or MetS, is a cluster of symptoms, including abdominal fat, high blood pressure, high cholesterol and insulin resistance or high blood sugar. It is considered a precursor to type 2 diabetes and also increases your risk of heart disease and stroke. A growing number of studies has shown that keto can have a profound effect on both MetS and diabetes by replacing glucose with ketones as a fuel source. As a result, insulin release slows and blood sugar levels normalize.

A study in 2017 found that people with MetS who were put on a ketogenic diet for 10 weeks experienced significant weight loss and an improvement in their body-fat percentage and blood sugar numbers. When it comes to diabetes, a just-published study showed that when adults with diabetes reduced their carb intake from 250 to 100 grams per day, they lost weight and their blood sugar levels stabilized. "The data in this area is pretty good," says Ethan Weiss, M.D., a cardiologist at the University of California, San Francisco. "They've had success treating type 2 diabetes with keto, and often, people get so much better, they can stop taking their diabetes meds."

Heart Disease

While the cause-and-effect line from keto to cardiovascular health has not been definitively shown by long-term human studies, there's a wealth of evidence that keto can improve many risk factors for heart disease. "Researchers have looked at 30 different markers for heart risk, and except for a slight uptick in LDL cholesterol in some people, all of them went in the right direction," says Weiss. "That includes glucose blood levels, triglycerides, blood pressure and HDL cholesterol. It can be hard to tell whether some of those results are simply from the weight loss, but from my perspective as a cardiologist, if people drop extra weight and improve so many other factors—well, at the very least, it's neutral." And if your risk factors are trending the right way, you're likely to be lowering your chance of cardiovascular disease.

Cognitive Health

The brain is the fattiest organ, comprised of 60 percent fat. And studies have suggested that a high-fat keto diet offers neuroprotective

One year-long study found 22 of 26 cardiovascular risk factors improved on a ketogenic diet.

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Blood tests reveal your progress with cholesterol and glucose levels.

benefits. In fact, the earliest and strongest evidence in keto research emerged nearly a century ago, when it was found that a ketogenic diet reduced brain seizures in children with epilepsy. More recently, a study in the journal *Neurobiology of Aging* showed that older adults with mild cognitive impairment who were put on a keto diet experienced better memory function after just six weeks. (As a bonus, the subjects also showed reductions in weight, waist circumference, glucose and insulin, all of which are health-promoting.) Some researchers have surmised that ketones may be a more efficient and "clean-burning" fuel than glucose, providing more energy per unit of oxygen used.

"A ketogenic diet increases the number of mitochondria, the so-called 'energy factories' in brain cells," says Shelly Fan, Ph.D., a neuroscientist and the author of the new book, *Will AI Replace Us?* A recent study in rats on a keto diet showed genetic changes in their brains that prompted an increase in energy metabolism in the hippocampus—the part of the brain that's key to learning and memory. Another study, from the University of California at San Francisco, also using rats, showed that a ketogenic diet reduced inflammation in the brain, which can cause damage to neural circuits and increase your risk of dementia.

Yet another connection between keto and brain health: Researchers know that diabetes increases your chance of getting Alzheimer's, the most common form of dementia. But they've now begun to talk about another form of diabetes: Type 3 diabetes, which is strongly associated with Alzheimer's disease. So if keto improves your glucose profile and reduces your chances of diabetes, it may be protecting your brain as well.

Cancer

The research about keto having an impact on cancer is in its early days—but it is intriguing. The new class of cancer drugs often leads to high levels of blood sugar, and according to a new study in mice, a ketogenic diet counteracts that effect and makes the therapy more effective. Another study in mice with malignant gliomas found that the animals who underwent radiation while they were being fed a keto diet lived much longer, most of them with no signs of tumor recurrence, compared to mice receiving radiation on a standard diet.

> ONE FACTOR THAT MAY EXPLAIN KETO'S OTHER BENEFITS: LOWERED INFLAMMATION.

"Now they're lining up studies in humans, to see whether keto enhances chemotherapy," says Weiss. "There's really zero evidence in humans yet that keto itself is protective against cancer, but there's a lot of excitement about the mouse studies." Says nutritionist Maya Feller, M.S., R.D., C.D.N.: "There's a lot of anecdotal evidence around people having a cancer diagnosis and then following a ketogenic diet. If I had a patient diagnosed with active malignancy, I wouldn't just give a blanket 'Do it'—it depends partly on where you are in your treatment. It's something to talk to your doctor about."

Polycystic Ovarian Syndrome (PCOS)

The evidence about keto and PCOS is also preliminary but promising. PCOS is an endocrine disorder that causes enlarged ovaries with cysts. It has been shown that a high-carb diet can negatively affect women with PCOS and that the condition can put them at risk for diabetes and obesity. A small pilot study found that overweight women with PCOS who limited their carb intake to less than 20 grams a day for six months showed reductions in weight and insulin as well as in levels of the hormones testosterone, LH and FSH, which may be factors in PCOS.

Experts agree that more research is needed, but some doctors now suggest keto to their patients as an adjunct therapy—partly because the diet helps with inflammation and insulin resistance, both of which play a large role in PCOS.

Of Mice and Men

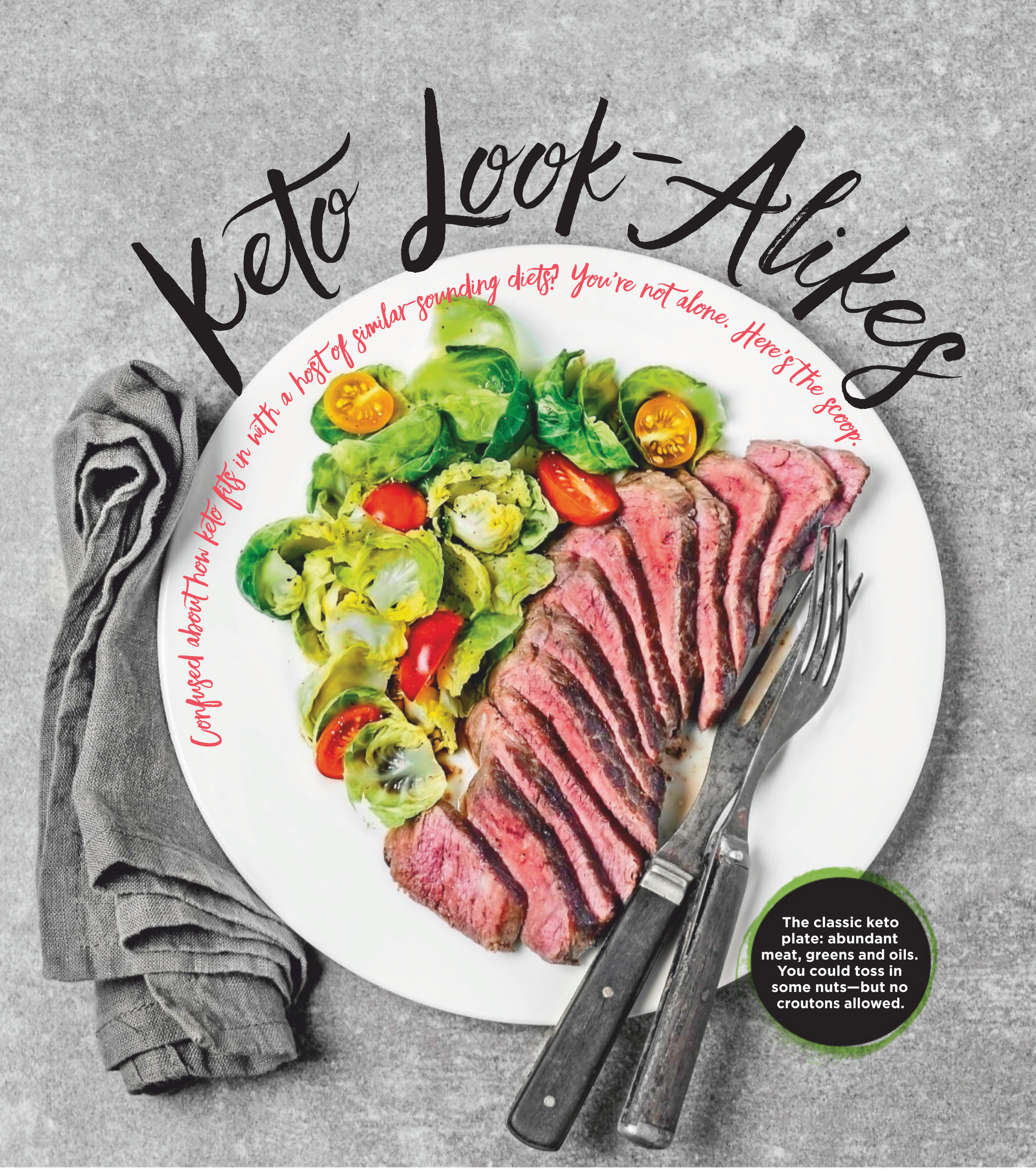
Much—though not all—of the keto research thus far has been conducted in mice and rats. Does this mean we can apply those results to humans? Not exactly—or, at least, not yet. The results are suggestive rather than conclusive, says Ethan Weiss, M.D. "Rodents are great tools for understanding biological pathways or unraveling single genes or molecules," he explains. "We've learned a lot from mouse models." Rodents are the most commonly tested animals for several reasons: They're easy to raise and control, and their genetic, biological and behavioral qualities closely resemble those of humans. Also, many symptoms of human conditions can be replicated in rodents, plus we've learned how to breed genetically altered mice that carry genes similar to those implicated in human ailments—giving us a jump-start on studying a particular disease.

That being said, the resemblance only goes so far. "We've probably cured cancer 1,000 times in mice," says Weiss. "You can't automatically make the leap that any given therapy will be as effective in humans. But many studies done in mice have guided us to human trials. For instance, the appetite hormone leptin was first discovered in mice who became super-obese from a spontaneous mutation, and it has become an important area for research in humans."

So those rodents? Be grateful to them for doing so much for science, but don't change the way you live because of one or two studies in mice, experts advise. Instead, look at that research as hope and inspiration for the human trials to follow.

Keto Look-Alikes

Confused about how keto fits in with a host of similar-sounding diets? You're not alone. Here's the scoop.



The classic keto plate: abundant meat, greens and oils. You could toss in some nuts—but no croutons allowed.

THE NUMBER OF other, keto-reminiscent low-carb plans in cyberspace and on bookstore shelves can cause a serious case of déjà vu. Where is the boundary between keto and, say, paleo—and which one is best for you? This breakdown of the differences can help.

ATKINS

Of all the regimens out there, Atkins' rules are the closest to keto's—but only in Phase One of the strictest plan, called Atkins 20, which is almost identical to standard keto. Dieters stay in that "jump-start" phase for anywhere from a couple of weeks to several months, depending partly on how much weight they have to lose. Once you move out of that phase, however, the differences mount. Phase Two adds in legumes (not allowed on keto) as well as dairy and nuts, which you can eat on keto, but which are banned from Atkins 20's first stage.

By Phase Three, you're eating 50 to 80 grams of net carbs, including keto no-nos like fruits, grains and starchy vegetables. Finally, in Phase Four (considered maintenance), carbs can reach 100 grams a day. The goal with keto, in contrast, is to remain in ketosis—which means never increasing your carbs. Although keto is more restrictive, many people like that its rules are easier to follow. Atkins may be helpful for people who want convenience, as the company offers products such as frozen meals and snack bars. Most keto practitioners cook from scratch, which allows them more control over what they're eating, plus it's a lot cheaper.

After the preliminary, super-strict phase, your Atkins meal can include healthy starches, like lentils.

PALEO

The Paleolithic plan has its roots among a few researchers in the 1970s and was popularized by Loren Cordain, Ph.D., in his 2002 book *The Paleo Diet*, reissued in 2010. Cordain proposed a Stone Age diet for modern humans, so Paleo mimics the foods our hunter-gatherer ancestors ate on the (not scientifically confirmed) assumption that our basic biology hasn't changed much since then. Which means Paleo, like keto, cuts out all grains, legumes and refined sugars, which are all products of agriculture.

While a Paleo plate might look similar to keto—largely meat and vegetables, with few starches—there are key differences in the overall diet. For instance, Paleo is fruit-friendly (our ancestors foraged for fruits as well as vegetables), and the overall carb range is much higher: 22 to 40 percent on Paleo, compared to keto's 5 to 10 percent. Protein is also emphasized on Paleo, ranging from 19 to 35 percent, which means that fats go down to 28 to 47 percent, far below keto's level. Paleo also frowns on dairy (largely a product of farming, not foraging) and on cured meats because of their high sodium levels, so you can say goodbye to bacon and cheeses.

Potatoes? Yes, they're carb-rich, but they're also an ancient foodstuff, making them Paleo-friendly.

SOUTH BEACH

This widely advertised diet plan places the emphasis on protein rather than fats while also holding to a low-carb and low-sugar ethos. Like Atkins, South Beach has a "jump-start" phase, called a "body reboot," which lasts one week before settling into a diet that—unlike keto—includes some fruits and grains. Overall, South Beach leans more toward a high protein, moderate fat, low carb model.

It's a sign of keto's popularity that South Beach now offers a "keto-friendly" program, which keeps the net carb level to 40 to 50 grams. But the plan's authors caution that it's not "strict keto," because they claim you can get many of the benefits of a ketogenic lifestyle without maintaining constant ketosis. In other words, this is "keto lite." South Beach also calls for eating six times a day so you don't go hungry; keto followers, on the other hand, often find they're satiated with three or even two meals a day. South Beach also offers convenience, shipping fully prepared meals to your home and, like Atkins, sells packaged foods like snack bars. But that is distinctly unlike keto, which places a premium on whole foods rather than processed ones, and is ultimately less expensive to follow.

Protein is big on South Beach, but meals are smaller, allowing for six little noshes per day.

THE Full Fat Story

The good, the bad, and the (occasionally) ugly of keto's No. 1 nutrient.

With the rise of keto, fat is no longer a dieter's enemy. For decades, this essential macronutrient has been dissed and downgraded, accused of causing ailments like obesity and heart disease. Food labels everywhere have touted "Non-Fat!" and "Reduced Fat!" as selling points. Now keto has returned fat to the menu, but many people remain confused about which kinds are the best to eat—and whether some are still considered unhealthy. Luckily, new research in just the past few years has revealed a lot more about how fat works in the body and which types to choose. Following is a breakdown of the various categories and the bottom line on each.

Saturated Fats

These types of fats, which are solid at room temperature and mostly derived from animal sources (think meat, cheese, butter, lard), were long blamed for raising blood cholesterol

Triple your dose of omega-3 fatty acids by sprinkling salmon with seeds and then sautéing it in some olive oil.

and contributing to heart disease. But the tide has been turning, says David Ludwig, M.D., Ph.D., a professor of nutrition at the Harvard T. H. Chan School of Public Health. "Saturated fat used to be public-health enemy No. 1," he explains, "but it's neither that nor exactly a health food. Overall, it's rather neutral, depending on what other foods are eaten with it or substituted for it."

Research is backing that up. A report in *Annals of Internal Medicine* analyzed 76 studies and concluded there was no evidence for avoiding saturated fats in favor of unsaturated. Another meta-analysis, in *The American Journal of Clinical Nutrition*, has found no support for the idea that saturated fat increases the risk of heart disease or stroke. Despite those and similar findings, the American Heart Association still recommends severely limiting saturated fats to 6 percent of total calories per day. So what gives?

Well, it's complicated, says Ludwig.

"For instance, saturated fats do somewhat raise LDL, the so-called 'bad' cholesterol. But at the same time, they raise the 'good' HDL cholesterol, which is protective, and they also lower triglycerides." And the higher your HDL, the better. Balance is the key, says Kendra Whitmire, a nutritionist and dietitian in Laguna Beach, California, who practices functional and therapeutic nutrition. "You don't want to eat only saturated fats," she says. "You'll want to balance those with omega-3 fatty acids and other forms. But if you're getting your saturated fat from whole-food sources—butter, meat, eggs—in addition to taking in some fish oils and vegetable and nut oils, it's not going to be a problem."

Unsaturated Fats

These fats come in two forms, monounsaturated and polyunsaturated, and many healthy foods naturally contain some of each. These are the fats you'll hear characterized as "healthy," because in general, they've been shown to raise HDL cholesterol and lower LDL.

Monounsaturated fats are abundant in olives, avocados and many nuts, such as walnuts—and also in their resulting oils when pressed into liquid form. These are generally "good-for-you" fats, especially the heart-healthy, HDL-boosting olive oil, though there are some exceptions (see "On the Out List," next page).

On the polyunsaturated side, one type, in particular, has been found to be especially beneficial: the now world-famous omega-3 fatty acids, which have come to be seen almost as a kind of wonder fat. In addition to their cardiovascular benefits, omega-3s have been found to reduce inflammation in the body, help fight depression and anxiety, lower blood pressure, reduce cancer risk, improve sleep quality and skin health, possibly reduce risk of dementia and more. Omega-3s are abundant in fatty fish, like salmon, mackerel and herring, and also in some plant sources, such as flaxseed and chia seeds.

But, just to muddy the waters a bit, another form of polyunsaturated fats, omega-6, is a little less golden. This type, which includes many vegetable oils like soybean, corn and safflower, is also essential to health—in moderation. Because these oils are widely used in restaurant and packaged-food preparation and have also benefited from a reputation as heart-healthy and superior to saturated fats, we now consume many more of them than we did a century ago. Here, the devil may be in the dose—or, more precisely, in the ratio.

Humans evolved on a diet with a ratio of omega-6 to omega-3 fatty acids of about 1 to 1, according to many evolutionary and Paleolithic-nutrition studies. But in the typical Western diet today, the ratio is 15 or 16 to 1, a staggering difference that is thought to promote many common ailments, including cardiovascular disease, cancer and autoimmune disorders. Research has shown that lowering the ratio down to 3 or 4 to 1 can help prevent those conditions.

Trans Fats

The fourth category is man-made fats—and here, the answer is simple: Just say no. Trans fats came about when food manufacturers in the early 20th century found a way to make liquid fats shelf-stable (and thus useful for packaged goods, like crackers and breads) by transforming them into solid fats through hydrogenation. This processing, though, made them dangerous, and trans fats were ultimately found to increase LDL cholesterol, reduce HDL, create inflammation and cause insulin resistance—all of which greatly raise the risk of heart disease. Trans fats are now banned by the FDA in the U.S., but always look for them on the label; if you see trans fats listed, put the item back on the shelf.

FATS IN FOODS

EAT THESE FREELY

Fish

Poultry
(look for free range and organic)

Meats
(look for grass-fed and unprocessed beef, lamb, pork, venison)

Eggs

High-Fat Dairy
(cream, sour cream, full-fat cheese, cottage cheese, mayonnaise, cream cheese)

Avocados

Olives

Nuts
(pecans, almonds, walnuts, hazelnuts, cashews, macadamias)

Seeds
(sunflower, chia, flaxseed, pumpkin)

EAT THESE CAREFULLY

Processed and Cured Meats
(bacon, salami, ham)

AVOID THESE

Margarine
(full of trans fat)

Fast-Food Meats
(often cooked in unhealthy oils)

COOKING WITH FAT

All the Oils You Need

EXTRA VIRGIN OLIVE OIL

The benefits of this mainly monounsaturated fat are many: It is antioxidant, anti-inflammatory and antibacterial; protects against heart disease; and raises HDL cholesterol. It has a medium smoke point (the heat at which an oil starts to degrade), so it's fine for sautéing but not for cooking at very high temperatures. It excels in sauces and salad dressings.

COCONUT OIL

While coconut oil is saturated, it's a type that operates differently in your body than animal-based saturated fats. It also may have special benefits: It boosts fat burning and contains medium-chain triglycerides (MCTs), which go straight to the liver to be used as a quick source of energy or turned into ketones.

BUTTER

Now that margarine has been banished to the neverland of trans fats, butter has made a slow, steady comeback. Butter can create magic in cooking and is completely keto-friendly. But it has a low smoke point, so if you want to cook at higher heats, use ghee (clarified butter) instead. (You can buy ghee or make your own.)

AVOCADO OIL

Whole avocados are keto gold, and the oil pressed from the fruit is equally healthful. It's also incredibly versatile, with just about the highest smoke point of any oil—520˚F—meaning that you can cook at very high heat without having it break down or burn.

SESAME OIL

Sesame seeds have been pressed to extract their oils for thousands of years. They bring a distinctive flavor, particularly savory in Asian-inspired dishes, along with hefty omega-3 values and compounds called phytosterols that reduce cholesterol uptake in the body.

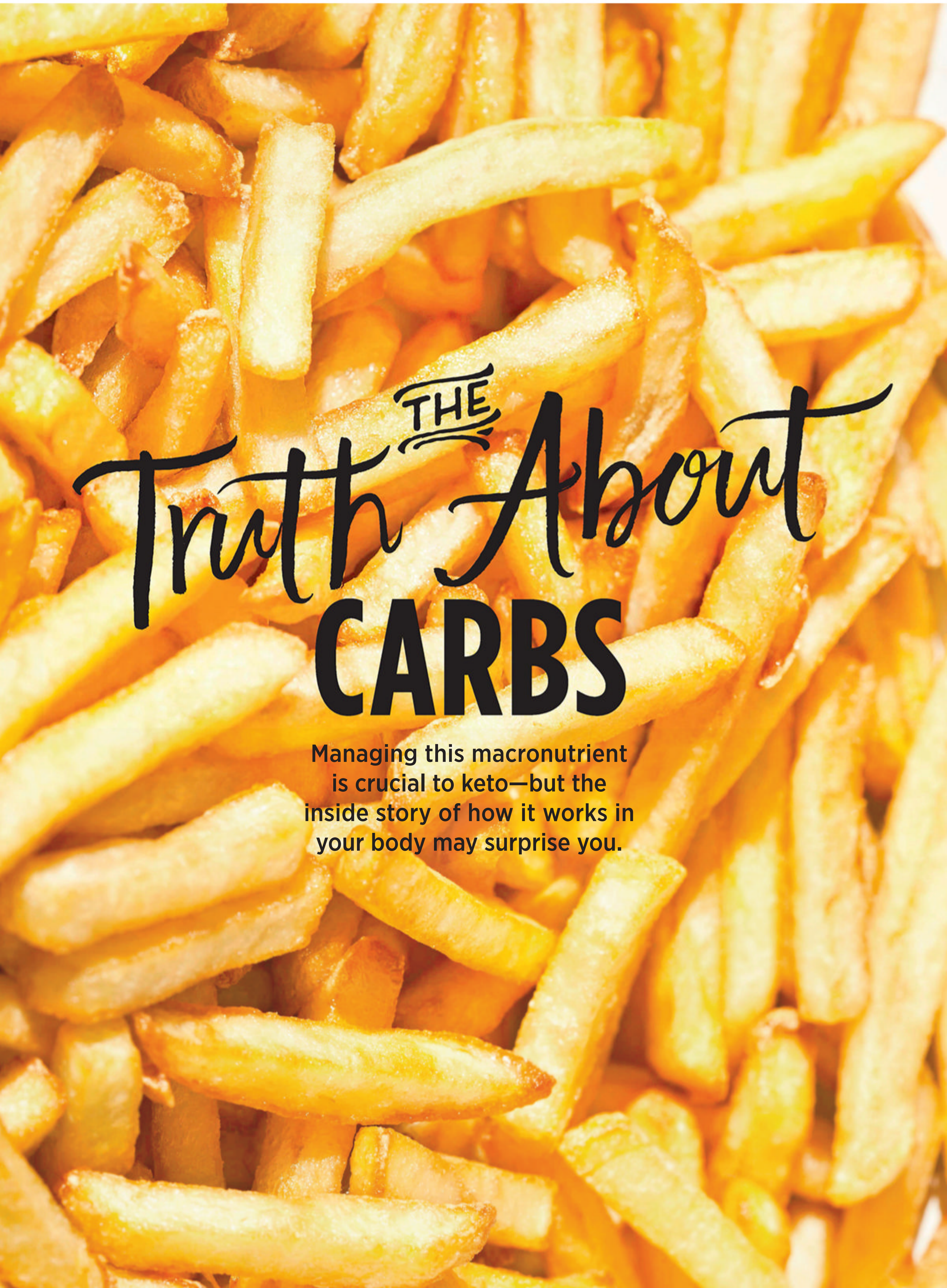
WALNUT OIL

Walnuts are stars of a keto diet, and so is the oil they provide—which is rich in omega-3 fatty acids as well as vitamins like manganese, niacin, potassium and zinc. It doesn't cook well at high heats; its rich, nutty flavor is better served as a star ingredient in sauces, salad dressings or toppings for grilled meats.

ON THE "OUT" LIST

Many vegetable and seed oils, as currently formulated, go through intense processing at high heats (as opposed to oils that are cold-pressed, like olive and avocado), making them toxic and inflammatory. The high heat can cause oxidation that creates heart-damaging trans-fatty acids, so cross these oils off your shopping list:

Canola
Soybean
Corn
Peanut
Sunflower
Safflower
Cottonseed
Grapeseed



THE Truth About CARBS

Managing this macronutrient is crucial to keto—but the inside story of how it works in your body may surprise you.

These colorful members of the Brassica family are "good carbs"—loaded with vitamins C and E, folic acid and fiber.

Fats are the undisputed hero of the keto narrative. But carbohydrates? Their role is more complicated—sometimes the villain, sometimes an ally. Knowing how carbs work in a keto diet is key to following the plan in a healthy way.

First, a little history. Not long ago, carbs were celebrated as the base of an optimum diet. Remember the Food Pyramid, with its foundation of grains and starches, while fats and oils were in a tiny category at the top? Well, picture the pyramid turned upside down, and you have the paradigm of keto perfection. That shift is increasingly supported by science. For instance, a large decade-long epidemiological study, published in *The Lancet*, found that high carbohydrate intake was associated with a higher risk of total mortality, while a higher total-fat intake was related to lower mortality.

However, many of the healthiest foods on the planet are largely composed of carbs (think: broccoli, leafy greens, asparagus, tomatoes) so it's not as simple as making all carbohydrates the bad guy. "People are confused about how to manage carbs," says Maya Feller, M.S., R.D., a nutrition counselor specializing in chronic disease prevention based in Brooklyn, New York. "The fact is that many whole foods that are largely carbohydrate are also rich in fiber, minerals and vitamins." While a ketogenic diet calls for reducing total carb intake to between 20 and 50 grams per day (depending on how strict a regimen you're following), the key to following it safely and healthfully lies in choosing the best carbs for your body.

Scientists debate whether you can actually become addicted to sugar. But what's not debatable is the "sugar slump" that follows a muffin binge.

The "Bad" Carbs

A growing mountain of research is showing that one particular form of carbohydrates—the kind in highly processed and refined foods, like sweets and white bread—is not your body's friend. "All digestible carbohydrates are broken down into simple sugars in the intestines," explains Andreas Eenfeldt, M.D., founder of DietDoctor.com. "That raises blood glucose levels, which increases production of insulin, our fat-storing hormone." With highly processed carbs, that happens even faster, leading to blood sugar spikes as your body gobbles up the easy fuel and ending with an equally quick drop.

The result: You're soon hungry again and craving quick energy in the form of more sugars and starches. "That starts the process again, and that vicious cycle leads to weight gain," says Eenfeldt. And because insulin prevents fat burning and stores any surplus in fat cells, your body hangs onto those extra calories in the form of fat, he adds.

But weight gain isn't the only downside of consuming refined carbs. There is growing evidence that they increase inflammation throughout the body, which contributes to a host of illnesses, including cardiovascular disease, cancer, Alzheimer's and diabetes. Eating low-carb, on the other hand, helps lower inflammation. A study in *Annals of Medicine* compared a low-carbohydrate diet to a low-fat one for six months and found that inflammation was significantly reduced in the low-carb group—but not among the low-fat contingent.

BROCCOLI IS ONE OF THE "GOOD GUYS," DESPITE ITS CARB CONTENT. SAUTÉ IT IN OLIVE OIL FOR A KETO TREAT.

Are Net Carbs For Real?

You may have seen "**net carbs**" on food labels and in nutritional listings for recipes and wondered whether it's a gimmick or a reality. It's a simple formula—**the total grams of carbs in a food, minus the grams of fiber**—and it does have science behind it, says Kendra Whitmire. "Your body doesn't process fiber, so you don't break it down and use it as calories," she explains. "Instead, fiber is passed through to your colon and acts as a fuel source for bacteria, which helps move waste from your body." That's one reason that fiber-rich vegetables, for instance, are low in net carbs—and good for your whole system.

Yet another drawback to simple carbs is that they are, as your mom probably used to say about candy and soft drinks, just empty calories. "Carbohydrates like breads or cookies are highly processed, and are stripped of nutrients," notes Kendra Whitmire, a nutritionist and dietitian in Laguna Beach, California. So while they have plenty of calories—they're energy-dense—they aren't nutrient-dense.

"A whole food that's largely carbs, though, like kale or cauliflower, still has all its vitamins, minerals, antioxidants and flavonoids—all the good nutrients in plant foods. So a hundred calories of white bread is not the same as a hundred calories of cauliflower rice," adds Whitmire. One causes a quick energy spike and drop before getting stored as fat, and the other brings all kinds of healthy nutrients and fiber to the table, releasing its fuel more slowly into your system as your body breaks it down. Your blood glucose remains more stable, so you don't need to release a flood of insulin.

The "Good" Carbs

A healthy keto diet aims not only to limit carbs in general to induce ketosis, making your body burn fat instead of glucose, but also to maximize the bang for your buck that you get from the nutrient-dense carbs you *do* eat. So first, always opt for whole foods over processed ones, shopping in the produce section rather than the packaged-foods aisle. But even within the universe of carb-based whole fruits and vegetables, there are optimum choices.

"Here's a good rule," says Eenfeldt. "Vegetables growing above ground are usually low in carbs and can be eaten freely. Those growing below ground though, are higher in carbs, so be more careful with them on a low-carb or keto diet." Root vegetables, like potatoes, beets and carrots, are examples of relatively high-carb whole foods. Leafy greens, cabbage, zucchini and broccoli, which grow above ground, are a few of the many satisfying veggies that are very low in carbs and high in nutrients, vitamins and antioxidants. Other good choices are veggies with a high water content, says Whitmire, like cucumbers, celery and lettuce, all of which are 90 percent water. They're filling and very low-carb, and they can help replenish the water you may be losing on a keto diet (which can cause dehydration and constipation).

Fruits are a different story, because most are high in natural sugar. "Fruit is nature's candy," says Eenfeldt. "On a low-carb or keto diet, you'll have to be careful with it, because the carbs can quickly add up. If you want a taste of fruit, your best choice is berries, like raspberries and blackberries." Those have three or four net carbs per half-cup, compared to 21 in a medium apple and 24 in a banana. These foods have always been in our diet, of course, but not in the amounts on offer today. "For most of human history, fruit was available only for a limited time each year, in season," Eenfeldt explains. Now you can eat a banana from the tropics anytime, which can add up to a lot of sugar. The flip side is that you can pick up bell peppers or asparagus from across the globe all year long and pair it with fish or steak for a keto dinner.

Top 10 Low-Carb-Veggie Stars

CAULIFLOWER
CABBAGE
BROCCOLI
ASPARAGUS
ZUCCHINI
SPINACH
KALE
BRUSSELS SPROUTS
CELERY
CUCUMBER

STRENGTH TRAINING INCREASES MUSCLE MASS, SO YOU BURN MORE CALORIES ALL DAY LONG.

Get Moving

Exercise on keto? Absolutely—although you may not feel like it in the first few days, cautions Ramsey Bergeron, owner of Bergeron Personal Training in Scottsdale, Arizona, and a ketogenic triathlete. “Exercise can really maximize the benefits of keto, especially fat burning and cardiovascular health,” he says. “But some people get the ‘keto flu’ at first, as the body adjusts to burning fat instead of glucose, its go-to energy source. And if you had a high sugar intake before starting keto, that sluggishness may hit you a little harder.” Listen to your body and don’t go all-out the first week or two if you’re feeling fatigued.

Also key in those first couple of weeks, says Bergeron: “Don’t try anything new. I don’t like to change too many variables at once, because if it’s not going well or your form isn’t good, it’s harder to distinguish whether it’s the exercise itself or the adjustment to keto that’s causing problems. And be careful with anything requiring super focus or motor skills, like road cycling, because you might be more easily distracted or a little off-balance at first.” After that period though, you should be good to go. Just follow these guidelines.

Work with Weights

Strength training is imperative, especially for women, because their metabolism tends to slow more easily than men’s. “The only way to rev it up is to maintain or increase muscle mass,” says Bergeron. When you’re lifting, your body will burn through the glycogen it has produced and start burning your fat stores while building muscle. But if you want to do both cardio and strength training, Bergeron suggests *not* starting with the cardio. “You might burn through all your fuel during the cardio and not feel as strong by the time you get to the weights, so you won’t be getting the optimum benefit.”

Go Easy on Cardio

Speaking of cardio: Don’t overdo it. Bergeron advises shooting for zone 2 with your cardio, about a five or six out of 10 on the “perceived effort” scale—the level where you can talk in full sentences, not two-word gasps. “Walking 30 minutes a day is actually a very good keto exercise,” he says. “Maintain a good pace—not power walking but not ‘walking the dog’ level either. If you just rely on high-intensity cardio, you’ll actually lose muscle, which means you’ll burn less fat. Muscle burns fat even when you’re not working out.”

Eat Carbs Now and Then

Surprise—yes, an occasional “cheat” is recommended. “Your body can sort of ‘forget’ how to deal with carbs,” says Bergeron. “Having a ‘carb day’ every two or three weeks is especially important if you’re into endurance workouts. It reminds your body how to process carbs so when you’re given a banana or an energy gel during a race, you can digest it without having gastrointestinal problems.” Hello, spaghetti and meatballs!

Time Your Meals

Could timing be a key to getting the most out of keto? Some ketoers are signing on to the concept of combining a ketogenic diet with a technique called intermittent fasting, or IF. Before you get alarmed at the idea of depriving yourself of food on a regular basis: There are several ways of going about IF, and many people find one form in particular, called time-restricted eating, to be fairly easy to follow.

What's interesting is that keto and IF actually work in your body in somewhat similar ways. "In both scenarios, your body is forced to use fat as a fuel source in the form of ketones," says Kristin Hoddy, Ph.D., R.D., an obesity medical liaison with Novo Nordisk. In keto, ketosis happens because you're not eating very much "fast-fuel" glucose, so your liver has to convert fatty acids into ketones for energy. In IF, after you go about 12 hours without eating, you run out of stored energy from carbs and start burning stored fats. Both can lead to weight loss and other health benefits. So can IF and keto together give you double the results? Read on.

Fasting's Cred

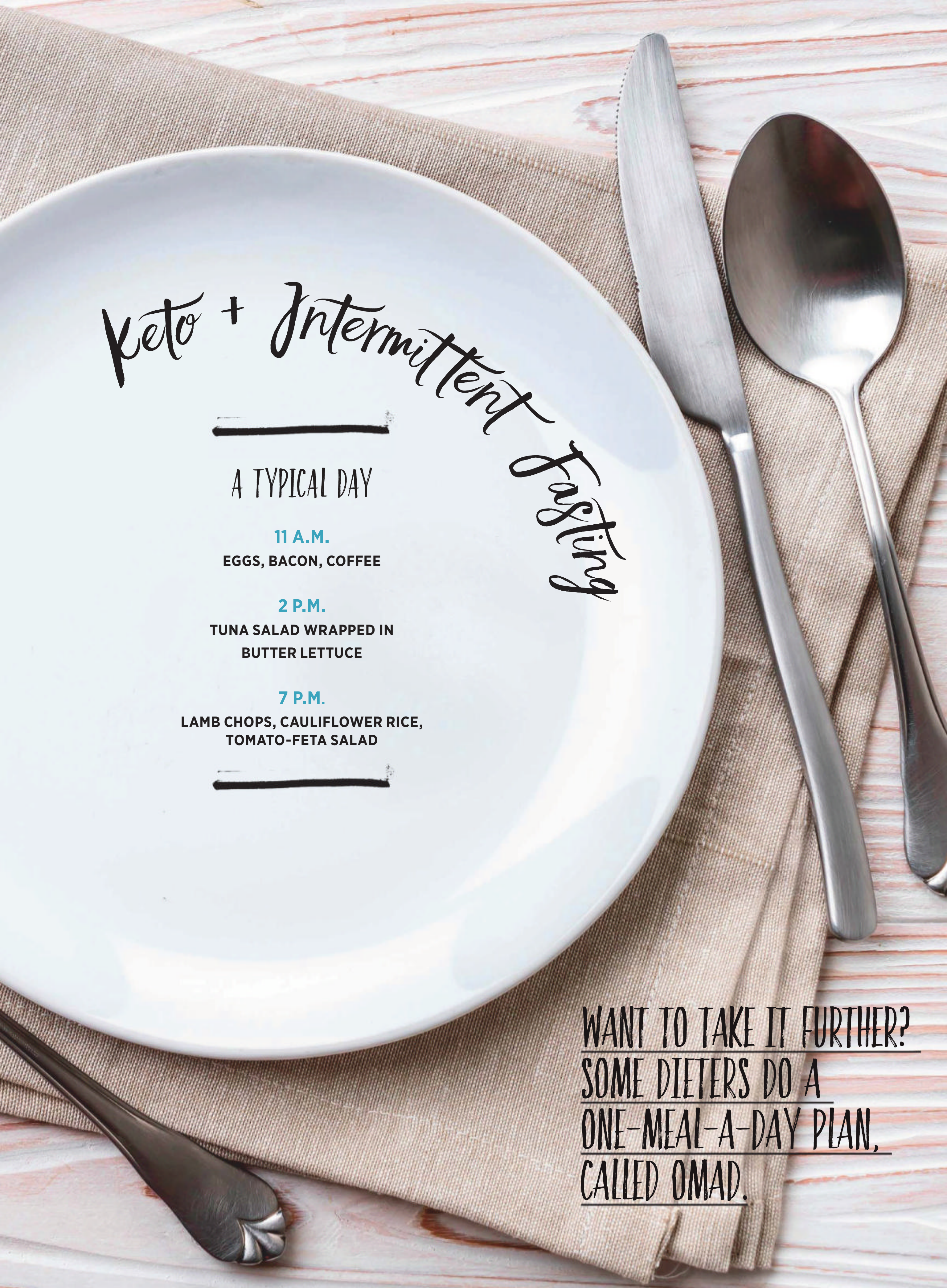
Many diet plans emphasize never getting too hungry, so it can sound bizarre to willfully abstain from food. But we actually fast every night, which is why the morning meal is "breakfast." In fact, scientists believe our bodies evolved in a feast-or-famine environment, enabling us to function well, even optimally, when deprived of food for periods of time. For instance, some studies have shown that IF improved cognitive function, brain structure and growth of new neurons in the brain. One theory is that IF acts as a form of mild stress that revs up cellular defenses against molecular damage and stimulates autophagy, a kind of garbage-disposal system in cells that gets rid of molecules that are old or faulty. "Interestingly, when a ketogenic diet was being used to treat epilepsy in children, it was sometimes kick-started by an initial fast to get ketosis going," Hoddy points out—there's that brain factor again.

The Insulin Connection

Insulin is released when we eat—especially when we eat carbs—in order to manage blood sugar levels. So when you don't eat for periods of time, both insulin and blood glucose go down. And since insulin is a "fat-storing" hormone, when it's reduced, your fat stores can be more easily released to be burned as fuel. On the other hand, if you're nibbling on food all day, your body is constantly releasing insulin, which can lead to increased fat stores and, ultimately, to insulin resistance, a major risk factor for type 2 diabetes.

How to Do It

The form of IF that has been most rigorously tested is the 5:2 plan, in which you eat on a normal schedule five days a week, interspersed with two day-long "fasts" with very limited calorie intake (about 500 calories). Many people, however, find the 16/8 structure—that means, you eat all your food for the day within an eight-hour window—easier to follow. "Adherence is key in any diet, so it's important for dieters to find an approach they can maintain," says Hoddy. If you don't mind, say, skipping breakfast, you could plan to have a noon lunch and make sure you're done with dinner by 8 p.m. Since the fats you're eating on keto are extra-satiating, you may find it surprisingly easy to cruise through the night and break your "fast" with just a cup of black coffee.



Keto + Intermittent Fasting

A TYPICAL DAY

11 A.M.

EGGS, BACON, COFFEE

2 P.M.

TUNA SALAD WRAPPED IN BUTTER LETTUCE

7 P.M.

LAMB CHOPS, CAULIFLOWER RICE, TOMATO-FETA SALAD

WANT TO TAKE IT FURTHER? SOME DIETERS DO A ONE-MEAL-A-DAY PLAN, CALLED OMAD.

Anti-Inflammatory

SPRINKLE ON SPICES
LIKE TURMERIC, CAYENNE
AND CINNAMON FOR
A POWERFUL NUTRIENT
(AND FLAVOR) BOOST.

Make It Healthier

The keto diet, in its basics, is simple. Eat according to macronutrients: 75 percent fats, 15 to 20 percent protein and 5 to 10 percent carbs. But the foods you choose within these parameters can vary widely. Pork rinds and processed meats fit the bill, but they're not exactly health foods. Josh Axe, D.N.M., C.N.S., D.C., founder of DrAxe.com, outlines a plan for a super-healthy version of the regimen in his book, *Keto Diet*. It focuses on anti-inflammatory foods and can lead to faster weight loss while having a more powerful impact on your cardiovascular and immune systems.

"This plan is superior to 'regular keto' diets because it provides high levels of nutrients that many people are lacking," Axe explains. These include dietary fiber; probiotics; phytonutrients, like flavonoids; and essential minerals and electrolytes, such as magnesium, potassium and calcium. Intake of all of these can drop on standard keto, because it cuts out foods people may have relied on—bananas, beets and sweet potatoes, for example, are all prime sources of potassium. Axe's plan includes keto-friendly ways to take in these nutrients. This is how it works.

The Benefits

Inflammation is necessary for survival: It kicks in when you're injured to protect and heal, causing redness and swelling around a wound, for example. But when it's chronic over time, inflammation may be a key player in many ailments, including heart disease, cancer, dementia and auto-immune conditions. By eating anti-inflammatory foods, says Axe, you can reduce those risks.

"Eating this way improves your gut health," he explains, bolstering your microbiome—the helpful bacteria that live in the gut, which have been shown to affect everything from brain function to the immune system. "An anti-inflammatory plan also helps keep hunger under control, reduces cravings and fights symptoms of 'keto flu'—including fatigue, brain fog and moodiness." And since inflammation can slow your weight loss, you may drop pounds faster with this plan.

What to Eat

"Emphasize healthy fats and oils," says Axe, "like olive oil, coconut oil, free-range eggs and grass-fed butter." Good sources of protein include wild-caught fish, which are rich in omega-3 fatty acids, as well as grass-fed meat and pastured-raised poultry. You'll find these on many keto plans, but Axe's program also enters new territory. "Probiotic foods, like fermented veggies, are great for rebuilding and maintaining your microbiome," he says. Bone broth also promotes gut healing, he adds, and supplies amino acids and other key compounds. "High-antioxidant foods, like sea vegetables, cocoa, herbs and spices are crucial too." Eat nonstarchy veggies for antioxidants and fiber and use quality protein powers, made with collagen or bone broth.

What to Avoid

What you *won't* eat on the Axe plan is equally important. Unlike many other keto diets, his program nixes dairy and soy. "These trigger inflammation," he says. And, he advises steering clear of grain-based oils. "These come in large part from genetically modified canola, soy and corn, and tend to be rancid. They also have too many omega-6 fatty acids, which promote inflammation." And avoid processed meats, like bacon and sausage. "They're linked to an increased risk for heart disease and certain types of cancer," Axe explains. Go for a nice grass-fed steak instead.

YOUR BODY ON *Ketosis*

Zoom in to see the changes that keto makes to your entire system, from head to toe.

133
134
135
136
5
3

Among all the ways that keto can alter your anatomy, there's only one that's easy to see: weight loss. But under your skin, within your organs and bloodstream, research is showing that keto may transform how your body functions.

To be clear: The scientific research has yet to catch up to all the glowing reports from keto fans. Ethan Weiss, M.D., associate professor at the Cardiovascular Research Institute at the University of California San Francisco, says he has been doing keto for a year and feels "terrific." He has lost weight, his borderline prediabetes is gone, and he feels a new kind of mental clarity. "And I'm skiing like I'm 25 years old again," he adds. "It's like night and day. I haven't felt this way in ages." But, he concedes, a lot of the "softer claims" about keto, for instance cognitive boosts or less joint pain, are anecdotal rather than rigorously studied.

"A long-term ketogenic diet does not seem to be associated with significant side effects," says neuroscientist Shelly Fan, Ph.D. But she cautions that there are few long-term studies that have monitored all the possible side effects. "While it's too early to say that the diet is completely safe for everyone," for most people the risks seem minimal, and the benefits may be substantial.

WHY THE WEIGHT LOSS?

Numerous studies have shown that many people drop pounds on keto—and also do better at keeping them off over time. Here's what we know, so far, about why.

SATIATION

Studies have shown that people feel more satisfied on high-fat diets, and over more hours, so it takes them longer to feel hungry again. One study found that overweight adults with type 2 diabetes consumed one-third fewer calories when eating from a low-carb high-fat buffet than when eating from a standard buffet; they also said they felt more satiated. That may be due to slower "gastric emptying" when digesting fats: They stay in your stomach longer than carbs, dampening hunger.

APPETITE HORMONES

Several hormones, including ghrelin and insulin, work to stimulate appetite, and both hormones decrease on a keto diet. Insulin is released from the pancreas when you eat carbs to control blood sugar, so in the absence of carbs, you put out less. Ghrelin is released largely from the gut; it's called the "hunger hormone," because it is directly related to appetite. A study in *Nature* found less ghrelin (and lower appetite) in people who lost weight on keto—even though people who lose substantial weight usually have *more* ghrelin. The increase may be why many people who lose weight on a low-fat diet end up gaining it back.

KETONE BODIES

Ketones may also have a hunger-reducing effect. A recent study in *Obesity* gave people either a "ketone ester" drink or a glucose drink; those drinking ketones had less physical hunger and a reduced desire to eat. The key, again, may be ghrelin: The ketone drinkers had lower levels of it for hours afterward.

METABOLISM

There may be a metabolic "boost" from keto, because eating fewer carbs makes your body work harder to turn fat into ketone fuel. It's the opposite for most low-fat dieters, who show a drop in metabolism, thus leading to regain. A higher metabolism means more calorie-burning, even at rest.

FAT BURNING

On keto, your body has to dive into fat stores to get energy. Also, insulin stores fat, so when levels decrease on keto, your fat stores become accessible and your body starts firing up its fat-burning furnace.

TRACKING KETOSIS

How can you tell if you're getting to the Promised Land of ketosis? You have three choices:

KETO STICKS

Widely available, inexpensive and noninvasive, these test for ketones in urine. But it's a rough estimate and they get less accurate as your body learns to use more ketones than it excretes.

FINGER PRICKS

The most accurate reading—but also expensive and invasive. You prick your finger and test a drop of blood to measure the major ketones.

BREATH ANALYZERS

The newest entry...and the costs end once you buy the device. Quick and easy, these measure ketones excreted in breath; but it's not yet known how accurate they are.

THE INSIDE STORY

An overall benefit many keto dieters report: higher levels of energy during the day—since your fat-and-ketone fuel is released in a steady supply—rather than the ups and downs of glucose from carbs.

Brain

Your brain is 60 percent fat, but it can use only glucose or ketones for fuel (unlike muscles, which can burn fat directly). Some studies show that ketosis enhances memory in people with mild cognitive impairment, and researchers are looking at whether keto can protect against brain aging and neurodegenerative diseases, like Alzheimer's. Studies in rodents show that keto diets reduce inflammation (a cause of neurodegeneration) and improve outcomes after brain injury.

Heart

Virtually every study looking at weight loss on a ketogenic diet finds improvements in numerous health indicators tied to cardiovascular disease. "While no one has done a 'hard outcome' trial looking at the rates of heart attack and keto, we've had studies that looked at 30 different markers for heart risk," says Ethan Weiss. M.D. "Except for a slight uptick in LDL in some people, every other marker went in the right direction—blood glucose, HDL cholesterol, triglycerides, blood pressure and many more."

Pancreas

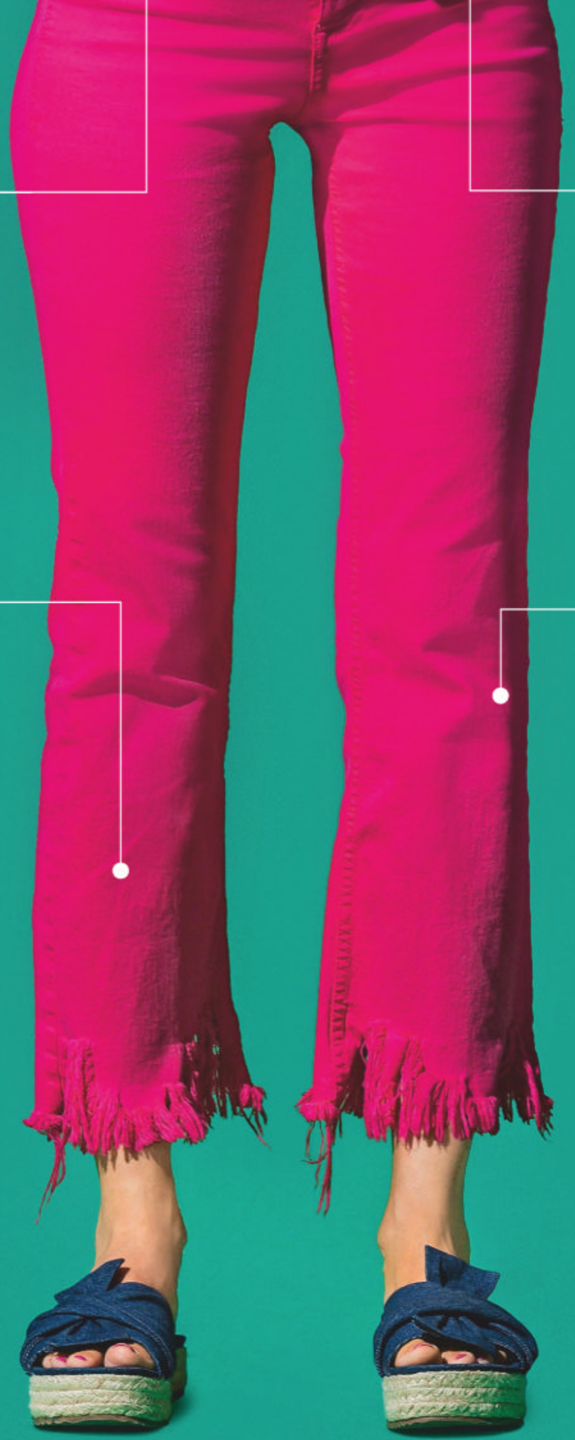
This organ catches a break on keto. The pancreas is a key part of the digestive and endocrine systems: It regulates blood sugar by secreting hormones, including insulin, when you eat carbs. So when you cut carbs, the pancreas doesn't need to make as much insulin. That may help people with insulin resistance, in which your body gets "worn out" by insulin spikes and stops responding to the hormone's signals. The result: rising blood sugar and potential diabetes.

Abdominal Fat

Not only does keto encourage overall weight loss, but a study in the journal *Endocrine* found that the diet seems to target inflammatory visceral (belly) fat in particular. That isn't just a cosmetic issue: Belly fat is considered a risk factor for all kinds of conditions, including cardiovascular disease and cancer, because it wraps around key organs and leaks toxins into them.

Liver

This organ is where the action is with ketosis: Fatty acids are stored in the liver, and when your body runs out of glucose energy on the keto diet, your liver starts converting that stored fat into ketone bodies. One ketone in particular, beta-hydroxybutyric acid, has been found to be key to cell signaling (the way cells talk to each other) and may play a key role in treating metabolic diseases, including type 2 diabetes.



Colon

Here's where you may have some adjustment issues when you first go keto. Some people have either constipation or diarrhea in the first few weeks, due to changing over from high-carb to high-fat eating. For many people, that means a lack of fiber or changes in the gut microbiome, the intestinal bacteria that aid in many processes, including digestion. Drinking lots of water and eating leafy vegetables can help.

Muscles

Your muscles store carbs as glycogen, but once they run through their stores on keto, they can directly start burning body fat as fuel. Another benefit of keto, compared to other diet plans, is that it may help preserve lean body mass (aka muscle tissue) during weight loss, according to an article in the journal *Nutrition & Metabolism*. The benefit is twofold: You're burning fat rather than muscle—and the more muscle tissue you have, the stronger your metabolism becomes, because muscle takes more energy to "feed" than fat does.

Blood Pressure

Experts aren't sure whether the drop in blood pressure that occurs in many hypertensive people on keto is due to the weight loss itself or some other factor—but they all agree that a normalizing of blood pressure is a common benefit of keto. And since high blood pressure is a risk factor for many conditions, including cardiovascular disease, stroke, kidney damage and dementia, that's a win all around.

Ovaries

There is preliminary evidence that keto may help women with polycystic ovarian syndrome (PCOS), an endocrine disorder that causes enlarged ovaries with cysts, often leading to infertility. PCOS is associated with obesity and insulin resistance, both of which can improve on keto. A pilot study followed women who ate 20 grams or less of carbs per day for six months and found significant weight loss and improved hormonal status. Two of the women even became pregnant after having previously been infertile.

Joints

Inflammation is behind the joint pain and swelling that can come from chronic conditions like rheumatoid arthritis or bursitis, and keto has been shown to lower systemic inflammation in all parts of the body. By contrast, high glucose levels in the blood from eating a high-carb diet increase inflammation.

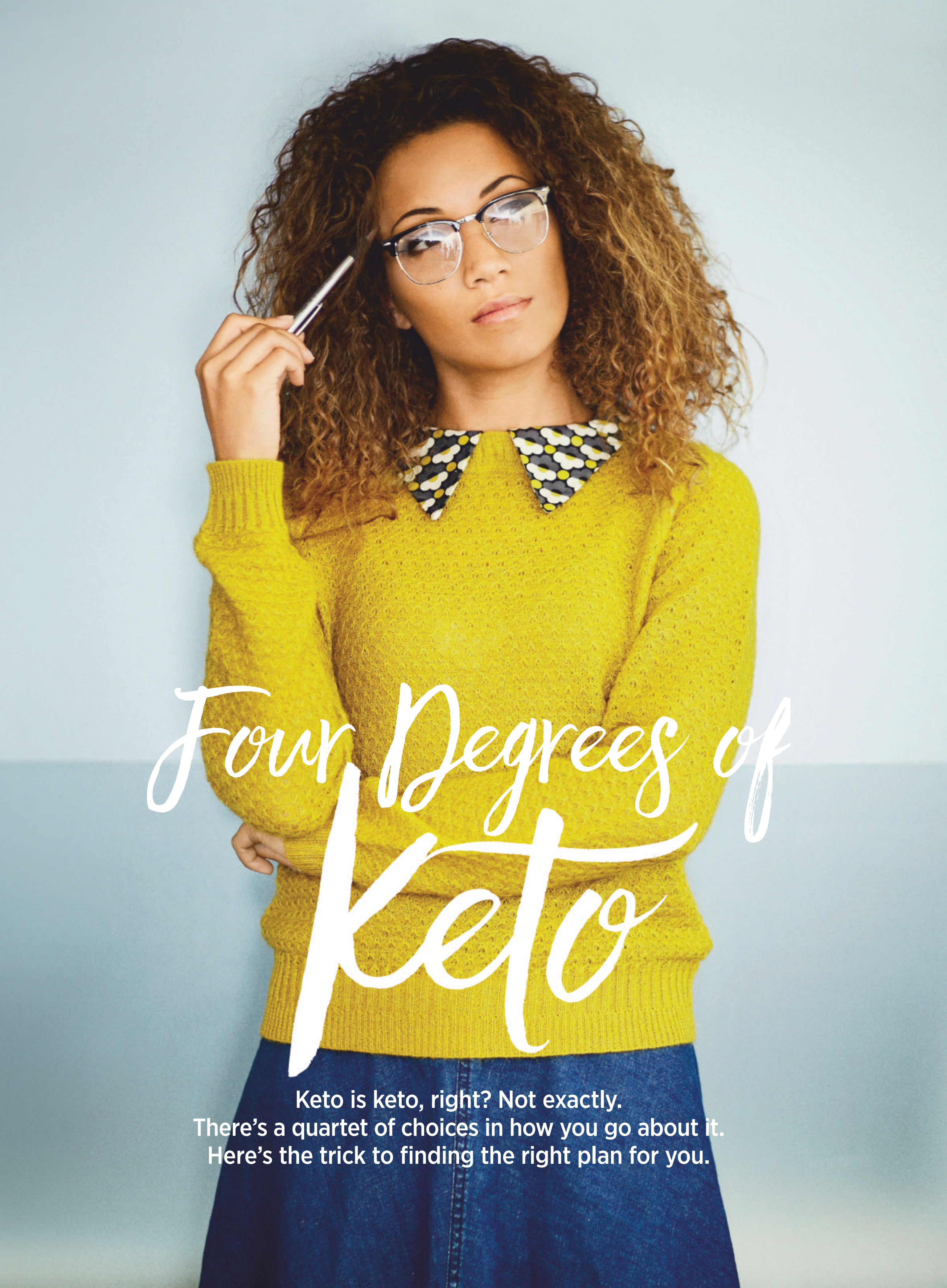
Cancer

The evidence for a connection between keto and cancer treatment is preliminary but intriguing. Some studies have found that a ketogenic diet made chemotherapy and radiation more effective, possibly because it may reduce inflammation and edema around tumors. Another theory holds that glucose and insulin can drive tumor growth—and if you deprive cancer cells of their "food" by reducing both of those with a keto diet, you can weaken and "starve" cancer cells.

READY, SET,

KETO

The Basics of Getting Started



Four Degrees of Keto

Keto is keto, right? Not exactly.
There's a quartet of choices in how you go about it.
Here's the trick to finding the right plan for you.

MANY PEOPLE TRYING a ketogenic diet have no problem upping their intake of butter, cream, meat and cheese. Letting go of not only processed and refined carbs (buh-bye, crackers!) but also starchy vegetables (see ya, baked potatoes and French fries) is often way more challenging. Not to mention that full-on keto relies heavily on cooking your own meals to ensure you're taking in the right kinds of fats and following a strict ban on carbs—but not everyone wants to or is able to spend that much time in the kitchen.

The good news is that there are several variations on keto that still confer benefits, including fat loss and metabolic results, but may be easier for some people to follow. The main distinction between these variations and standard keto, says Julie Upton, M.S., R.D., C.S.S.D., is how steadily you stay in ketosis. "The traditional ketogenic diet aims to keep you in the metabolic state where you burn fat rather than carbs as your primary fuel source," she explains. "On a modified keto diet, in contrast, your body may go in and out of ketosis—but you still shed weight and body fat." Read on to discover your options.

1

STANDARD KETO DIET

75% Fat, 15–20% Protein, 5–10% Carbs

● The most demanding and strict of the four regimens, standard keto requires that you plan your meals around fats like avocados, butter, fatty fish and meats and olive oil. "You're aiming for about 150 grams of fat a day, which is probably around three times the amount of fat you were eating before," says Upton. Your protein intake is moderate, amounting to about 30 grams at each meal—about four ounces of meat, fish or poultry. The biggest change for most people, adds Upton, is carb intake, which goes from the average 300-plus grams a day that most Americans consume to 50 grams or less (the amount in one regular bagel or two bananas). On keto, most of the few carbs you take in will come from leafy greens and nonstarchy vegetables. This plan is quite a jolt to your system, and many people experience various side effects, such as digestive problems or "keto flu," in the first few days of following the diet.

2

TARGETED KETO DIET

65–70% Fat, 20% Protein, 10–15% Carbs

Athletes or people who work out at high intensity can find themselves flagging while following standard keto. That's because when you're exercising at maximum effort, your muscles may run out of ketones and demand glycogen, which is a form of glucose stored for future use. Glycogen is usually your body's go-to fast fuel, but if your diet is very low-carb, you may be low on glycogen stores. The result: exhaustion rather than exhilaration during workouts.

That's why athletic folks may want to opt for the targeted keto plan, which ups the number of approved carbs. "Targeted keto allows athletes to have an additional 20 to 30 grams of carbs, bringing the daily total to between 70 and 80 grams," says Upton. "They should eat the extra carbs before, during and after exercise and then go back to keto for the rest of the day." Timing is key: The carbs you add in—preferably healthy options like fruit, dairy or whole-grain-based foods or sports-nutrition products—will get burned off by the exercise, so they won't be stored as body fat. And they allow you to work out harder, giving you accessible fuel for your muscles.

Weights (or running) on the regular require a little more quick fuel.

3

CYCLICAL KETO DIET

75% Fat, 15–20% Protein, 5–10% Carbs (On Keto Days)

25% Fat, 25% Protein, 50% Carbs (On Off Days)

Keto cycling is, for some, the best of both worlds. "A lot of people can't stay on keto every day and need more flexibility," says Upton. When you cycle in and out of keto, rather than beating up on yourself if you cheat, you plan to go off in a measured way. "Say someone does three weeks on standard keto and plans for a few days off—knowing that the break is coming can power them through the keto phase," Upton says.

There's more than one way to cycle. Another approach is to spend five days of each week doing strict keto, followed by two nonketo days. You could, for instance, go keto during the workweek and take a break on the weekend, freeing you up to enjoy a nonketo meal or two out. But keep in mind two things. First, this isn't a pass to eat added sugars or processed foods; make sure the carbs you add are wholesome, like fruits, dairy, whole grains or sweet potato. Second, don't freak if you see temporary fluctuations on the scale. The added carbs may make your body hold on to more water, but once you're back on keto, that will quickly disappear. And you may have increased your odds of sticking with keto long-term by taking a break.

15
16
17
22
23
29
30

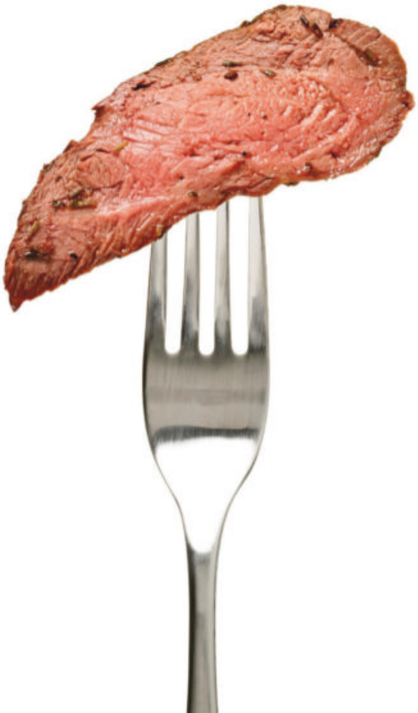
4

HIGH-PROTEIN KETO DIET

60–65% Fat, 30% Protein, 5–10% Carbs

This plan is an easy switch if you've already tried Paleo, making it a popular choice among people who have tried some form of low-carb diet before. And many high-fat foods are also fairly rich in protein, so high-protein keto is just a slight tweak of the standard plan. This diet boils down to eating about 120 grams of protein per day, or about four four-ounce servings of meat, fish or poultry, and around 130 grams of fat. Those ratios can make it easier to plan meals, Upton points out, because it's a little closer to what most people are accustomed to putting on their plates.

Your carb level stays the same as on standard keto, so you are still likely to drop weight fairly quickly, says Upton. One key difference is that you may not always be in ketosis, because your body converts any excess protein into glucose for fuel. But because you're not increasing your consumption of carbs, you'll be able to continue to lose weight.



The Plateau Problem

"Plateaus always happen—period," says nutritionist Julie Upton. "As you lose weight, your metabolic rate declines, making it harder to keep losing weight." But the number on the scale isn't the only marker; there are times when you may stay the same weight for a few days or a week while the tape measure shows another story as you lose inches. If you're convinced you're on a true plateau, try these three strategies.

Start (or Resume) Counting When you started on keto, you probably were careful to count up your total carbs for the day to make sure you were adhering to the plan. That tends to fall off as you settle into your keto lifestyle. If your body fights back, take another look at the carbs you might be taking in. "Carbs are sneaky," says Julia Sweet, a keto follower and contributor to Ketogasm. For instance, many food labels round nutrient amounts up or down. "All heavy cream has 0.4 grams of carbohydrate per tablespoon, but some brands round that up to 1 gram and others round down to zero," she says. "It adds up. There are also carbs in eggs—one large egg has 0.6 grams of carbs. So your breakfast, with cream in your coffee and three eggs, can easily bring you to 10 percent of your carb grams for the day. All while you're thinking you're eating carb-free." Another example: One ounce of cheddar cheese (which looks like a cube the size of four dice put together) also has 0.4 grams of carbs, and yet many keto guides say it has "zero" carbs. Cured meats and condiments, like hot sauce, are another source of hidden carbs, says Sweet.

Use Your Kitchen Scale Another way you can kid yourself, says Sweet: eyeballing portions. "You may very well be taking in a lot more than you think," she says. "If you're picking the biggest strawberries and thinking that you're gaming the system, it's time for a reality check—there really are more carbs in strawberries the size of your fist than in the ones half that size." Also, stop shaking a cup of sliced almonds until they settle into half their original volume. "Get a keto calculator," Sweet advises. "Then recalculate what you should be taking in, based on your new weight. If you're still eating for your old weight, you're overdoing it." A scale keeps you honest.

Amp Up Your Workouts Especially strength training. At the beginning of eating keto, you may have felt a bit too keto flu-ish to work out a lot. But after a few weeks, you should be energetic enough to get back to the gym—and your focus should be on weight lifting. "The more muscle mass you build or maintain, the more you boost your metabolic rate, helping you combat the drop in metabolism that always comes with weight loss," says Upton.

Get Started Guide

For most people, going keto means making big changes. Here's what to expect—and three ways to prepare.

Picture this: a bagel with cream cheese for breakfast, a sandwich for lunch, a burger and fries for dinner. That approximates a standard day of eating for many Americans. Now picture what's left of that menu once you've gone keto: cream cheese, sandwich meats or cheese, a bunless burger. Clearly, this plan needs an upgrade! Follow these three steps for a smooth transition.

Take Your Time

The first thing to realize is that keto isn't an overnight change, says Craig Emmerich, author of the bestselling book *Keto*. "It takes a few weeks for your body to switch over from primarily burning glucose to getting its energy from fats." That's especially true if your previous lifestyle is the bagel-plus plan described above. When you're eating keto, your body has to take an extra step: Instead of getting a rush of energy from carbs, which are quickly converted to glucose in your bloodstream, your liver has to get to work making ketones. "Most of us have been eating so many carbs that our bodies didn't have to worry about burning fats," Emmerich explains. There may be a time lag between the two phases, in which you're low on glucose fuel and not yet up to speed on ketones. That can make you feel like your energy is dragging at first.

"You'll have higher ketones in your system within two to three days, putting you, technically, into a keto-adaptive state," says Emmerich. "But your body has to go through a longer process of making more mitochondria, the energy factories in each of your cells, in order to burn fat more efficiently." That will take between four and six weeks, meaning that it's not an ideal time to plan an endurance race. Don't worry—your energy will end up bouncing back even stronger once you've "gone over" to burning ketones full time.

Get Social

Worried about sticking to keto while surrounded with friends or when confronted with a bread basket the minute you sit down at a restaurant? "It's important to remind yourself why you're on the keto diet and what your goals are—you could even write them down and keep them with you," suggests Elizabeth Brooking, M.S., R.D. You can sneak a peek at them while the basket is passed. Even better, she adds, let a particularly empathetic friend or two in on your plan so they understand why you're doing keto and what the benefits can be, to avoid those "You're not even eating fruit?" moments. You might inspire them to try it themselves, and you can form a support system for one another.

One great thing about keto is that it includes lots of delicious foods that don't suggest "diet" at all. So when going to a gathering, bring a crowd-friendly super keto dish to share—deviled eggs, meatballs, Buffalo chicken wings with blue-cheese dip. And if you're worried you'll be tempted by desserts, make a keto sweet at home so you know you have it waiting for you at the end of the evening.

AT FIRST, YOUR BODY WILL RELEASE RETAINED WATER, SO MAKE SURE TO TAKE IN ENOUGH SALT.

Plan, Plan, Plan

For most people, keto is different enough from their previous way of eating that there will be a learning curve. Get a leg up by thinking through how you're going to succeed. As Benjamin Franklin is rumored to have said: "By failing to prepare, you are preparing to fail." Avoid that fate by doing your homework. This means finding keto recipes you want to try and sketching out at least your first week of meals. Later on, you'll get proficient at playing it by ear from one day to the next—but at the beginning, you'll be glad you have a road map.

Then hit up the appliance store. Doing keto well is largely about becoming more of a home cook—that way, you know exactly what's going into your food and can be sure that no hidden carbs are sneaking in. To that end, you'll want to learn how to use a food processor to make cauliflower rice, a spiralizer to create zoodles and a good digital scale to plot out reasonable portions of your favorite high-fat dishes. Ready? Get going!

Going keto means transforming both your grocery-store experience and your kitchen. Here's what to look for—and what to toss.

YOUR ULTIMATE KETO Shopping List

Every shopping trip should start with greens.

One of the first things you'll notice when you switch from a typical American diet to a ketogenic plan is a total "recalculating" of your supermarket GPS route. That's because grocery stores are designed to put all the boxed, packaged, processed foods—along with goodies like chips and soft drinks—right smack in the heart of the store, where you can't help but be tempted. The more basic, unadorned, whole foods, the kind you'll be looking for on keto, are relegated to the far corners. "You're going to end up walking around the perimeter of the store," says Craig Emmerich of Keto-Adapted, "because that's where you'll find high-quality meats and low-carb vegetables. Those are your mainstays." We took a stroll through the supermarket aisles with Emmerich to create a road map to your new eating plan.

Produce

This colorful section is one place you'll spend a lot of time. First stop: butter lettuce. "It's a great tool to use as a replacement for buns or wraps," says Emmerich. It's soft and flexible yet strong enough to hold an Asian chicken filling, burgers, tacos or deli meats. As a bonus, butter lettuce contains vitamins A and C along with folate.

Stay in the greens section for other leafy friends, like romaine lettuce, spinach, Swiss chard, kale, collard and beet greens and arugula. All are packed with vitamins—including A, B, C and K—fiber and antioxidants, along with other nutrients. Then stop by the cruciferous area and pick up broccoli, cabbage, bok choy, brussels sprouts or cauliflower, which is particularly versatile as a stand-in for rice and as mashed "potatoes." Other good choices: asparagus, cucumber, bell peppers and green beans. Plus summer squash like zucchini makes a great pasta impersonator. Give a pass to starchy veggies, such as potatoes, beets, parsnips, rutabagas and carrots.

When it comes to fruit, most are off the keto menu, but there are three notable exceptions. Berries, especially blackberries and raspberries, are fine as an occasional treat. And two things we tend to think of as vegetables but are actually fruits—tomatoes and avocados—are a keto yes. Avocados, in fact, are so high in healthy fats that they're an undisputed star.

All these foods can provide you with a laundry list of vitamins, minerals and nutrients—health boosters like magnesium, potassium and calcium as well as a wide array of antioxidants that help your cells resist damage and fight inflammation.

Meats and Fish

These foods give you a double whammy on keto: fats plus protein. When shopping for fish, look for wild-caught, which has the best nutrient profile. For meats and poultry, grass-fed, pasture-raised and organic are ideal. Organic is especially important, says Emmerich, because all animals' bodies store toxins in fat cells—so when you're eating a lot of fat, you want the source to have been raised as free of chemicals as possible. "It is more expensive, and you do have to shop according to your budget," he points out. "If you can't

THIS WEEK'S LIST

Asparagus
Broccoli
Celery
Cucumber
Garlic
Grass-Fed Butter
Heavy Cream
Parmesan Cheese
Wild-Caught Salmon
Zucchini

always afford grass-fed, regular will be okay. What we've found though, after helping thousands of clients switch to keto over the past 16-plus years, is that the majority who budget and track grocery bills find that month-to-month, they end up spending less than they did when they were nonketo. That's because you're eating far fewer processed foods, and those tend to be considerably more expensive than buying whole foods. That makes spending five dollars for a dozen organic eggs not as big a deal."

Dairy

Some keto eaters decide to avoid dairy, and a number of people are lactose-intolerant. If you do want to go for cheese and cream, keep in mind that lower-fat dairy does have some carbs. For instance, whole milk is not a good bet, but heavy cream is keto-friendly. As a substitute for whole milk, Emmerich recommends unsweetened almond milk, which has few to no carbs. Don't go too crazy with soy milk though. "It's very high in phytoestrogens, which mimic estrogen in your body, and that can mess with your hormonal balance," he adds. Most high-fat cheeses, like Swiss, Brie, Gouda and Parmesan, are fine. As with meats, organic and grass-fed are key when buying cheese, butter and cream, because you don't want to load up on toxins from the animal fat.

Pantry Items

Here, you take a turn into the center of the store for various essential and keto-approved products. First, the oils: Again, organic is best. Avocado oil is a star, because it has a very high smoke point, making it ideal for high-temp frying or sautéing. Olive oil is a versatile choice, excellent in salad dressings and good for cooking at a slightly lower temperature. Look for certain nut and seed oils as well—walnut, hazelnut and sesame are all good. Organic lard, long banned under "healthy eating," is also back on the menu with keto.

You'll want to stock various shelf-stable basics for recipes, including a good-quality, no-sugar-added tomato sauce that can be used for zoodle-pasta recipes and to make your own sugar-free ketchup. "Good bone broth is another must," says Emmerich. "We like Kettle & Fire, which is made in the traditional way and has lots of collagen and nutrients. Most important, it doesn't have added sugar—a lot of broths do. Use it for healing and in soup and stew recipes."

Heading to the baking aisle—yes, you can bake on keto!—there are several good choices for sugar substitutes to use in recipes, says Emmerich. One is Lakanto brand Classic Monkfruit 1:1 Sugar Substitute, which combines monk fruit extract with erythritol, a sugar alcohol that contains only 6 percent of the calories of table sugar. The sugar-alcohol molecules stimulate the sweet-taste

Sardines are one of the most nutrient-dense foods on the planet—and, as a bonus, are packed with oil and omega-3 fatty acids.

WATCH OUT FOR PROCESSED FOODS THAT ARE LABELED "KETO" BUT ARE FULL OF CHEMICALS.

receptors on your tongue, but your body can't digest them—so they pass through your body essentially calorie- and carb-free. Another erythritol-based brand is Swerve, which is called for in many keto recipes. A third option is stevia, which is mixed with erythritol to give it the bulk of regular sugar (stevia alone is many times sweeter than table sugar).

Keto-friendly, low-carb flours include almond and coconut, and you'll also want to stop by the spices. Not only do they add tons of flavor, says Emmerich, but "they have lots of nutrients, vitamins, minerals and antioxidants. Pick up things like oregano, dried parsley, tarragon, rosemary, ginger and cinnamon."

THE "OUT" LIST

Toss these from your larder.

Now that you're filling your shopping cart—and your kitchen—with the raw ingredients for your keto life, it's time to clear out the bad actors that might tempt you to fall off the keto wagon. Nix the following:

1

Any Traditional Baking Products
White or whole wheat flour, brown or white sugar, corn syrup, molasses

2

All Sugary Drinks
Not just soft drinks but also fruit juice (packed with sugar), energy drinks, bottled iced teas...anything with *sugar* on the label

3

Natural Sugar Sources
Fruits are healthy foods, but on keto they simply have too many carbs—so most of them have to go. The same goes for honey, agave nectar and maple syrup as well as starchy vegetables, like potatoes, beets, butternut squash and corn.

4

Grains
Rice, couscous, oatmeal and other cereals, polenta

5

Legumes
Beans like kidney, garbanzos, lentils and cannellini are too carb-filled for keto.

6

And, of Course...
Cookies, ice cream, potato or corn chips, breads, crackers, popcorn, pretzels

Keto Cooking Aids

These essential gizmos and gadgets will streamline your kitchen time, from slow-cooking to spiralizing.

You can make keto bread with this beauty! Need proof? Turn to page 91.

2
Instant Pot
05:20

1
KitchenAid
Stir 2 4 6 8 10
Classic
Kit

3
Hamilton Beach

4

5

6

1

KitchenAid Classic Series 4.5 Quart Tilt-Head Stand Mixer

A solid stand mixer is a must for keto basics like whipped cream or egg whites as well as all kinds of keto baking—not to mention rich and creamy cauliflower mash. This professional-level choice will last a lifetime. **$260; *kitchenaid.com***

2

Instant Pot Max 6 Quart

Pressure cooking has come a long way since your grandmother's kitchen. This high-tech Instant Pot saves the day when you need dinner pronto. It offers various modes besides pressure cooking, include sous vide, fermentation and home canning. A touch screen shows real-time temperature and cooking progress. **$150; *amazon.com***

3

Hamilton Beach 12-Cup Big Mouth Duo Plus Food Processor

Shred, chop and slice veggies and cheeses in an instant. This processor can turn a head of cauliflower into rice, whip up guacamole, grind meat for burgers or meatloaf, grate parm and much more. **$73; *hamiltonbeach.com***

4

MAC Professional Series 8-Inch Chef's Knife

You can't truly count yourself a cook until you own a serious chef's knife to slice meat and cheese, dice veggies or cut up a chicken. This model has a wide blade, with plenty of room for your knuckles and a dimpled surface to help cut through sticky foods. **$175; *macknife.com***

5

All-Clad 7 Quart Gourmet Slow Cooker

On days when you want to just fill the pot and forget about it, this versatile model can brown foods, slow-cook and steam. The stainless steel steaming basket is pretty enough to go straight to the table, and the programmable timer extends to 20 hours, with a six-hour keep-warm phase. **$330; *williams-sonoma.com***

6

Brieftons 5-Blade Spiralizer

Craig and Maria Emmerich of Keto-Adapted swear by this sturdy, stable spiralizer. It suctions securely to the counter, is made of BPA-free plastic and makes five different sizes of veggie pasta. **$24; *amazon.com***

Tailor Make Your Plan

Keto doesn't have to be one-size-fits-all. So you're a vegan? On the Mediterranean diet? Dedicated to Pan-Asian cuisine? Here's how to make it work.

The olive-oil dressing helps unlock the full nutritional benefits of the asparagus.

VEGAN

Many people assume that "vegan" and "keto" just can't go together, because they picture a plate full of meat or fish. "It's not as hard as you think!" says Liz MacDowell, a certified holistic nutrition consultant specializing in whole-food diets, food allergies/intolerances, special diets and nutritional support for digestive health who also runs the blog Meat Free Keto. "People ask, 'But where do you get your pro—' and I stop them right there. If you've been vegetarian or vegan for any amount of time, you've probably realized that there's protein in basically everything, even vegetables. If you do want to pump up your protein intake a little, you can add some nutritional yeast to your meals. It usually contains around three grams of protein per tablespoon and is very low-carb. There are also plenty of vegan protein powders on the market." Not to mention that the main point of keto is not protein but fat, partly because any excess protein is converted to glucose by your body. It may actually be harder to do Paleo or Atkins as a vegan than to do keto, because of those diets' emphasis on protein. For keto, fat, not protein, is where it's at.

"Oils are a vegan-keto freebie," says MacDowell, "because all oils are low in carbs and super-fatty. You'll want to have a good-quality bottle of olive oil on hand, along with coconut oil. And oils contain vitamins, minerals and other phytochemicals when they're not overly processed—so they're not just 'empty calories.' I remind people of this, because when I was first getting into healthy eating years ago, it was drilled into my head that I should avoid using oil in my food, the reason being that there was no nutritional benefit and it was high in calories." While it's true that oils are high-calorie, that's not a concern on keto, which isn't a calorie-counting program. And most importantly, fats and oils form the basis of keto. In addition to using enough oil, MacDowell suggests looking to whole-food sources like coconut, avocados, olives, nuts and seeds.

If you want to ease into a vegan-keto program, try replacing high-carb foods over time. "If you eat a lot of pasta and rice-based dishes, for example, you could start by replacing all the pasta with zucchini noodles (zoodles) and the rice with cauliflower rice," says MacDowell. "Then start eliminating other high-carb foods, like bread and potatoes, and shift to eating lower-carb fruits, like berries. It's a fairly sustainable way of eating, and you end up developing new habits over time." Keto vegans can also choose fatty plant foods, advises Megha Barot, cofounder of Keto Connect. "Things like hemp hearts, chia seeds, avocados, coconut and low-carb nuts, like macadamia, walnuts or pecans. A great breakfast is to soak hemp hearts and chia seeds in coconut cream overnight—it's like a delicious keto 'oatmeal.' "

For a vegan feast, toss these zoodles with olive oil, sun-dried tomatoes and pine nuts or walnuts.

EXPERIMENT WITH PASTA SUBSTITUTES, LIKE SHIRATAKI NOODLES MADE FROM THE KONJAC YAM.

AN ADDED BENEFIT OF THE FISH-FRIENDLY MEDITERRANEAN PLAN: OMEGA-3 FATTY ACIDS.

MEDITERRANEAN

The fish-and-vegetable-rich Mediterranean diet can dovetail quite well with keto—it's mainly a matter of favoring fish over red meat and indulging in plenty of olive oil and leafy greens. A recent study of people following a combined keto and traditional Mediterranean plan found successful long-term weight loss and improvements in health risk-factors like cholesterol, triglycerides and glucose levels. Perhaps most important, the study emphasized, compliance was very high. You could read that as saying, the diet was delicious and easy to follow—and when you see the list of foods on the diet, that's not surprising: poultry, fish, some beef and veal, raw and cooked green vegetables, eggs and cheeses like Parmesan.

"On Mediterranean, you go easier on things like butter and red meat," says Matt Gaedke, cocreator of Keto Connect. "But there's a nice crossover of the two with vegetable oils, such as olive, avocado and coconut, as well as seafood. Nuts and seeds are also a great way to up your fats and stay within the confines of both keto and Mediterranean."

Another thing the two diets share is an emphasis on whole foods and home cooking over processed foods, which are shunned on both regimens. The Mediterranean plan has certainly seemed to work for people who live in the Greek Islands, one of the so-called Blue Zones where people enjoy extraordinarily long and healthy lives. Picture a plate of grilled fish finished with olive oil, a salad of spinach, tomatoes, cucumbers and feta cheese, with a side of cured olives.

PAN-ASIAN

Asian on keto can be tough sometimes, because there's so much great food, whether it's Thai or Indian or Chinese, that's available and tempting in restaurants," says Gaedke. "And a lot of restaurants add sugar or use cornstarch or breading without listing those ingredients on the menu, so you might not realize it." You can deal with that by asking the waiter what's in the dish, requesting sauces or gravies on the side and getting extra steamed vegetables to add volume and texture, Gaedke says. But Asian Keto is also easily accomplished at home.

Think stir-fries and/or curried chicken, served over cauliflower rice. Or use your cauliflower rice to make a delicious fried "rice" with eggs or shredded pork. You do need to keep an eye out for any added sugars in teriyaki sauce or coconut milk though. "Make sure to use unsweetened canned coconut milk or heavy cream to make a gravy or curry," says Gaedke. "Stick with lower-carb veggies, like broccoli, asparagus and green beans, and amp up the flavor with garlic and shallots." Fresh ginger and sesame oil are also flavor boosters. And remember: Any kind of delicious Asian filling can be served in butter lettuce as wraps, so you can still have your moo shoo pork, just minus the pancakes.

Though bell peppers are allowed on keto, they contain more carbs than leafy green veggies,so don't go overboard.

THE Clean plate CLUB

There's been a lot of chatter about "dirty keto"—even the name itself evokes an olive-laden martini. Yes, it can be a shortcut. But is it worth it?

There are many ways to cut carbs down to 5 to 10 percent of your diet, increase fat intake to 75 to 80 percent and proceed to lose weight. That simple fact has led to a new trend that many call dirty keto—which boils down to an anything-goes approach. Also called lazy keto, it has an instant appeal, especially for those who aren't into home cooking or whose lives are hectic and geared toward convenience and fast foods. But there are some important downsides that you should know before signing on.

What Is "Dirty"?

"Like most registered dietitians, I don't use the terms 'clean' or 'dirty' when it comes to food," says Julie Stefanski, R.D., a specialist in the keto diet. "But what people mean by that term is that it relies on foods like lunch meats, fast-food burger patties without the bun and other low-carb convenience items. So-called dirty keto has always existed, it just didn't have a catchy label until now."

Dirty keto makes no distinction between foods, just between macronutrients—fat, protein and carbs. "Poor-quality meat and dairy and processed foods with refined oils and hydrogenated fats might technically be keto because they're high in fat and low in carbs," points out Josh Axe, D.N.M., C.N.S., D.C. "But they can also be problematic because they're inflammatory, hard to digest, often high-calorie and low in essential nutrients." And people looking mostly to drop pounds on keto should think twice, Axe adds, because the potential side effects of going dirty—not only inflammation but poor gut health, allergies, fluid retention and hormonal issues—can make weight loss more difficult.

What Is "Clean"?

This term is generally what people mean when they talk about keto: eating largely home-cooked foods made from whole, fresh products. "Clean keto translates into buying most foods as separate items, with limited ingredient lists," explains Stefanski. "Meats, vegetables, oils and spices are mixed together to create from-scratch meals. So you're getting minerals like iron and zinc from high-quality meat. And you're getting vitamins, fiber and antioxidants from vegetables, which fight cell damage." One rule of thumb for clean keto is to buy foods with the fewest ingredients possible—most of them should have just one (say, a bunch of fresh spinach leaves, rather than a frozen package of "creamed spinach" that may be low-carb but also have a mile-long list of preservatives and additives).

In addition to simply being healthier for your entire body, which functions better on real foods rather than industrial chemicals, clean keto can also help you learn better habits, says Axe. "You can continue to implement those after you transition away from keto," he points out. The result: You're likely to maintain your weight loss and any other benefits obtained from keto, like improved cholesterol and blood pressure.

A Middle Ground

"Dirty versus clean is more nuanced than just saying, 'I'll eat ice cream and pork rinds and bacon and throw in some avocado,'" says functional nutritionist Kendra Whitmire. "If you do need shortcuts here and there—say, a snack bar when you're on the run—you can look for manufacturers who are making healthier products, avoiding preservatives and retaining natural ingredients. Often these are smaller, more local companies." Stefanski agrees that there are times when you're working or traveling that you may have to grab a convenience item to maintain ketosis. "But if dieters are always opting for convenience over health, eventually that choice will impact them."

One way to decide how committed you want to be to clean keto is to think about your goals: Is your keto diet solely about losing weight? Or do you also hope it will improve your health, from lowering inflammation and disease risk to improving your energy levels and blood glucose stability? Most people going keto would choose the latter—which is a strong incentive to hit the grocery store and the farmers market and start cooking.

Not an experienced cook but want to go clean? Sign up online for the keto plan at meal-delivery service Green Chef. Organic ingredients, all measured and prepped, will turn up at your door. It provides everything you need to have a home-cooked keto dinner in 30 minutes!

How to Own It

Temptations, missteps,
cravings.... Going
keto calls for a new mind-set,
not just a new meal plan.
Here's how to get
your head in the game.

Lemon cream? Sprinkles? Yes, you *can* conquer the office platter.

Sticking to a keto diet definitely involves a learning curve—and not only about what the heck “macronutrients” are. You’re most likely taking a big step away from the typical American diet, which relies heavily on carb-based foods, like bagels and pizza, and on the convenience that comes with them. At first, you may be dealing with constant temptation on every street corner (or every strip-mall fast-food joint) you pass. There will be ups and downs, triumphs and roadblocks. Here are six ways to power through.

Focus on the Big Picture

Think of keto as a lifestyle change, not as a “diet,” advises Josh Axe, D.N.M., C.N.S., D.C., founder of Ancient Nutrition. “When you commit to living in a healthy way long-term, you’re more likely to bounce back after any setbacks.” If you’re hit with a craving, think about the payoffs down the road in terms of health and weight and contrast it with the short-term, immediate gratification you would get from eating the “forbidden” food.

Celebrate the Small Victories

One huge plus to the keto diet is that most people see some weight-loss results quickly. “That can be highly motivating to help you stick with it,” says Axe, so play up the good news. Lost three pounds in the first week? Pat yourself on the back. Down a dress size? Go shopping! Some people also find that celebrating (as well as commiserating) with fellow ketoers online in Facebook groups or on Instagram can help them keep the emphasis on the positive.

Don’t Despair at Mistakes

On the flip side, if you do, perchance, have a slice of that colleague’s birthday cake at the office party, don’t beat yourself up. “You don’t have to be perfect on the keto diet to experience real change and improvements in your health,” says Axe. “A temporary slip here or there doesn’t mean you won’t make progress or that you should just give up. The best thing to do if it happens is to forgive yourself, move on and get back on track as quickly as possible, starting with the very next meal.”

Get Your Beauty Sleep

Especially when you’re just starting keto, the plan puts a little extra strain on your body as it learns to break down fatty acids into ketones for fuel. So give yourself a break and catch some extra shut-eye. Not only will this boost your immune system, but studies show that being sleep-deprived can lead to overeating. According to the National Sleep Foundation, when you don’t get adequate rest, the level of the hunger hormone ghrelin in your blood spikes and the level of the appetite-suppressing hormone leptin falls. The result: It becomes harder to resist temptation and stay on the plan.

Visualize Your Goals

Give your imagination a workout, Axe suggests. “Write down a list of concrete goals and reasons that you want to make changes,” he says. “It could be keeping excess weight off—or losing weight—for heart health, feeling consistent energy, boosting your mental clarity.” Really picture what those results will look like and feel like, then tuck your list somewhere safe so that you can look at it often.

Reduce Stress

Lowering your stress levels helps you stick to keto in several ways. For one, you’re less likely to give in to emotional eating and dive into a pint of ice cream to relieve tension. Also, chronic stress raises levels of the hormone cortisol, which tells your body to store fat—a useful survival tactic in caveman days but counterproductive today. One approach is to use a meditation app (or join a meditation group) to learn mindfulness, which has been shown to strengthen emotional self-control. A 2013 study found that just two weeks of regular meditation practice helped smokers reduce their cigarette use by 60 percent. Brain scans of the participants revealed that meditation increased activity in areas related to self-control; experts believe the practice would have the same effect for dieters. Another stress-buster that packs a double punch: moderate exercise. Going for a half-hour walk daily is good for your mind and spirit and will also help speed weight loss.

Eating Out on Keto

Everyone needs a social life, but restaurants can be a challenge when you're sticking to a keto plan. We break down how to navigate your meals out with friends or family.

A good (read: healthy) keto plan is founded on lots of homemade food—but everyone deserves to be treated to a restaurant meal occasionally. Yes, there are hurdles; but with this menu cheat sheet, you can dine out and totally stay on track.

First, some guidelines. "The easiest thing, always, is to stick with protein and vegetables," says Katherine Brooking, M.S., R.D., "for instance, a grilled chicken breast or a piece of salmon with a side of asparagus or spinach." Heavy sauces are always suspect, she adds. Although some—like béarnaise—are mostly fat, many have hidden starches used to add bulk or smoothness. And as for the infamous breadbasket: If the waiter insists on bringing one to the table, ask on the down-low if he can instead serve bread individually so you're not facing down a collection of carbs.

Pro Tips

GO LOCAL Nonchain, locally owned restaurants are more likely to be flexible and make requested changes in dishes—especially if you pick a few favorite spots and become a known quantity (and good tipper).

BE CAREFUL WITH CHINESE FOOD This delicious cuisine presents a particular challenge, for two reasons. Virtually everything is served with rice, and many sauces have hidden sugars and starches. Order grilled entrées and steamed vegetables—and say no to the rice.

CHOOSE SASHIMI Going for sushi? Sashimi is perfect—but avoid items with white rice, like sushi rolls, or anything fried, such as tempura.

PLAN AHEAD Most restaurants put their menus online, so you can look up your choices and avoid any last-minute temptations.

GET CREATIVE Consider ordering outside the box and combining two or three appetizers rather than an entrée—or ask the waiter for a simple grilled fish plus veggies. Every chef knows how to do that!

MAKE IT YOUR CHEAT MEAL If you've decided you can handle the occasional "cheat," plan it for your night out, suggests Brooking. You can get right back on your keto regimen the next morning.

ANNOTATED FOR OPTIMUM KETO

MENU

STARTERS

CLAM CHOWDER

Soups are iffy—you don't know what's in there. Many "cream" soups use pureed rice or starches to thicken them up.

HUMMUS & PITA

Olives, paprika, pita

Hummus is made from chickpeas; like other legumes, they're outlawed on keto because of their high carb count.

CHICKEN WINGS

Your choice of: Buffalo, brown-sugar, chipotle BBQ or sweet chili sauce

Wings can be great—if they're simply grilled or fried, not battered. Also, many BBQ sauces have hidden sugars.

BEEF CARPACCIO

Paper-thin sliced beef on a bed of arugula, shaved Parmesan

Great choice! You could even combine it with one or two other keto-friendly appetizers to make a full meal.

PUMPKIN RISOTTO

Baby arugula, sage, carrots, green peas, Parmesan cheese

Nope. Risotto = rice.

ARTISAN CHEESE PLANK

Selection of cheeses, pecans, melba toast. Charcuterie extra

If you can resist the bread that comes with this (ask the waiter to leave it off the plate), cheese, salami and nuts can be a great choice.

ENTRÉES

CAESAR SALAD

Romaine, Parmesan, croutons, soft boiled egg, Caesar dressing

Caesar is a no unless you can either resist the croutons or the chef will agree to leave them out.

CRISPY CHICKEN SALAD

Lettuce, tomato, red onions, mushrooms, feta cheese, vinaigrette

"Crispy" is code for "breaded and fried," so opt for something else.

STEAK SALAD

Hanger steak, romaine, red onion, red peppers, Irish cheddar, buttermilk dressing

A good choice, though dressings can have hidden sugars. Ask for olive oil and vinegar instead.

SALMON BURGER

Chopped salmon, red onion, peppers, ginger aioli, Parker House bun

This can be keto, if you order it without the bun (ask for lettuce leaves to use in its place).

VEGETABLE BURGER

House-made wild rice–black bean burger, spiced hummus, seeded brioche bun

Ah, veggie burgers *sound* so healthy...but on keto they don't work. The rice, beans, hummus and bun are all loaded with carbs.

BRICK ROASTED HALF CHICKEN

Farro, fingerling potatoes, green beans

All good—except for the potatoes and farro, an ancient wheat. Ask to sub in extra green beans or a side salad.

FISH & CHIPS

Ale-battered cod fillet, tartar sauce, garlic lemon aioli, house fries

Fish is great, but a "battered" fillet plus fries puts this off the keto menu.

LIVING ON

KETO Recipes and Inspiration

AVAXHOME -

the biggest Internet portal, providing you various content: brand new books, trending movies, fresh magazines, hot games, recent software, latest music releases.

Unlimited satisfaction one low price
Cheap constant access to piping hot media
Protect your downloadings from Big brother
Safer, than torrent-trackers

18 years of seamless operation and our users' satisfaction

All languages
Brand new content
One site

AVXLIVE.ICU

AvaxHome - Your End Place

We have everything for all of your needs. Just open https://avxlive.icu

WHEN CARB CRAVINGS HIT, KARDASHIAN MAKES CAULIFLOWER RICE.

KOURTNEY KARDASHIAN

Diet of THE Stars

Athletes, actresses, newscasters, reality-show icons—a roster of people in the public eye have signed on to keto. Here's why they swear by it.

KOURTNEY KARDASHIAN TOLD *People* magazine that she was spurred to try keto as part of a detox after doctors found high levels of mercury in her blood; now she cycles on and off the diet. When she's on the plan, her secret weapon is adding intermittent fasting into the mix, which means eating dinner by 7 p.m. and delaying breakfast until after her morning workout, at 10:30 or 11 a.m. To break her overnight fast, the 43-year-old celeb makes a collagen-protein drink containing 18 grams of protein and 20 grams of collagen, mixed with water. "That really helps keep you full," she says. Once a week, Kardashian also does a 24-hour fast, drinking only bone broth and green tea.

HE EATS HIS GUAC WITH A SPOON.
TIM TEBOW

▲The NFL quarterback turned baseball player is a vocal fan of keto—and especially of one of the diet's stars: avocado. He told *GQ* magazine that he eats four of them a day. Tebow, 35, rounds out his diet with other favorites like eggs, Chilean sea bass, steak, asparagus and greens. He also swears by smoothies and shared one of his breakfast recipes: avocados, spinach, lemon, ginger, protein power, sometimes a little cayenne pepper or Stevia and crushed ice.

HALLE BERRY

▲ The 56-year-old actress has extra incentive to follow a keto diet: She was diagnosed with diabetes at age 22, and keto helps her manage her blood sugar. "I have always had to take food very seriously," she posted on Instagram last year. "So for years, I have been following the ketogenic diet. I believe it's been largely responsible for slowing down my aging process." Berry also credits the keto *lifestyle*—a word she prefers to *diet*—with improving her energy, mental performance, appetite control and physical endurance as well as giving her clearer skin and fewer migraines.

KATIE COURIC

▲ The former *Today* show anchor signed on to keto two years ago. She confessed to *Women's Health* magazine that she suffered some "keto flu" early on: "Until the fourth or fifth day, I felt a little shaky and headachy." But within a week, the 66-year-old felt "much better" and was eating mostly protein and some cheese. Couric was also reveling in putting half-and-half in her iced coffee "I gotta tell ya, it's damn good!" she said.

MEGAN FOX
AL ROKER
ALICIA VIKANDER

"KETO MAKES ME A MORE EFFICIENT MOM."

HE COOKED HIS KETO SLOPPY JOES ON THE *TODAY* SHOW.

▲ "Carbs don't make my body feel good," Fox told reporters at *E! News*. The 36-year-old actress, who hit the big time with the *Transformers* franchise, first tried keto to get her pre-baby body back after the birth of her third child. Fox puts her own spin on keto, eating five small meals per day. She has also banned processed foods and gets all her carbs from fruits and vegetables. Salmon, egg whites, almonds and smoothies round out her fats and proteins. One day a week, she allows herself to eat whatever she wants.

▲ A central figure on the *Today* show for decades, the gregarious TV personality struggled with his weight for years, once hitting a high of 340 pounds. Eventually, he lost 100 pounds through gastric-bypass surgery and has maintained the loss, with a few temporary ups and downs, since 2002. Roker, 68, started the keto diet in September 2018 and quickly dropped 40 pounds that had sneaked back on, telling his morning show colleagues that his "blood work, vitals and cholesterol have all gotten better. My blood pressure is great."

▲ When the 34-year-old Swedish actress was prepping for the Lara Croft role in *Tomb Raider*, her trainer added keto to her regimen—and she was hooked. Vikander brought her carb intake down to 25 grams per day, focusing on eating fish, avocados, MCT oil, coconut oil and low-carb veggies. She also paired keto with an intensive seven-day-a-week workout plan, putting on 16 pounds of pure muscle. The result: Lara Croft's chiseled abs.

ROSE
GARDEN
RECIPE,
PAGE 68

There's Fun

to be Had

Steak and salmon are all well and good, but sometimes you just crave a cocktail, a cookie, even a cheat day (shocker!). Yes, you can do all of them—if you follow this guide.

Keto has a reputation for being a super-strict regimen, but in reality it offers a fair amount of wiggle room. Things that you may have thought you had to give up—happy hour, desserts, even a whole day of unrestricted eating—can still fit into your keto calendar. Here's what you need to know.

Booze on Keto

First of all, is this even possible? Many keto experts and practitioners answer with an enthusiastic "Yes!" That being said, there's a good and a not-so-good way to go about it, along with a few potential pitfalls. We turned to sisters Lisa Clark and Erika Radford, keto imbibers and creators of the gorgeous cocktail here, for advice.

Q What are the best types of alcohol to drink while you're doing keto?

A Most kinds of alcohol have close to zero carbs per serving! Those include hard liquors, like vodka, gin, tequila, rum, whiskey, brandy, cognac and scotch. Some people assume that wine is packed with carbs, but it's not. It does have a few though, so the important thing is to watch how much you drink. Most dry wines have two to four grams of carbs per five-ounce serving—for example, sauvignon blanc has three grams. Beers are pretty iffy—you can have the occasional light beer, but anything else is too carb-heavy. Where you get into real trouble is with mixed drinks and cocktails that might have liqueurs, syrups and sweetened mixers, like tonic or Collins mix. For instance, a traditional margarita can have up to 30 grams of carbs per drink!

Q So you can make a keto cocktail at home, but what are your strategies when you're at a bar or restaurant?

A You can always order vodka or tequila with soda or diet tonic, in a pinch—boring but fine. Dirty gin martinis with olives are only one carb and delicious. You could also keep stevia or monk fruit drops in your purse and ask the bartender to leave out the simple syrup in whatever drink you're ordering, then sweeten it yourself. With wines, stick to dry ones. Sweeter varietals, like Reisling and moscato, are high in sugar.

KETO CAN LOWER YOUR ELECTROLYTES, AS DOES ALCOHOL. TO AVOID A NASTY HANGOVER, TOP THEM UP WITH COCONUT WATER.

Q What are dangers to watch out for?

A One important factor is that you might get drunk faster—so be careful! Normally, when you're drinking, your liver processes glycogen, which comes from glucose, before it gets to the alcohol. But in keto, your liver has very little glycogen, so alcohol goes to the front of the line—and straight into your bloodstream. This decreases your tolerance big-time. So slow down and drink plenty of water and electrolytes. The other thing to keep in mind is that drinking lowers your inhibitions, so be prepared and have some keto snacks ready for when hunger strikes. Pork rinds and dip, chicken wings and meat-and-cheese plates are all good and will save you from a drunken carbfest. As with all things keto, planning equals success!

Cheat Days

Many keto dieters live in fear of "falling off the wagon" and gobbling a bagel or cake, but some nutritionists think the occasional cheat day (or meal) is actually good for your prospects over time. "Few people can follow the keto diet absolutely, to the letter, every minute, because it is fairly restrictive," says Katherine Brooking, M.S., R.D., cofounder of *appforhealth.com.* "So building in some cheat meals or days can play an important role in staying on the plan long-term." The best way is to actually plan it, she stresses. "That way, you still have some structure. You're also less likely to feel guilty for not having the willpower to stick to keto perfectly. By planning ahead, you're giving yourself permission, like a 'day pass.' "

A cheat day or meal can also let off steam by allowing you to eat something nonketo but healthy—say, a baked potato or some lentils—and then return to keto. The main things to avoid, Brooking cautions, are turning your "cheat" moment into a total blowout (which will take longer to recover from) and having more than three cheat meals (or one cheat day) per week.

Sweets and Desserts

Your sweet tooth doesn't have to be totally ignored on keto, especially when there are so many good artificial sweeteners on the market. As with any dessert, homemade is always better—and that's doubly true on keto, where you want to avoid the chemicals and preservatives in a packaged treat and instead eat whole foods. Exhibit A: These to-die-for fudgy cookies! (See recipe, opposite page.)

Rose Garden

Serves 2, 4 g carbs each

INGREDIENTS

1½	oz. grapefruit juice
¾	oz. fresh lemon juice
1	oz. cream
1	egg white
8	drops rosewater
3	oz. Ketel One Botanical Grapefruit & Rose vodka
2	drops Bittercube Jamaican No. 2 bitters (made with grapefruit, lemon, vanilla and botanicals)
1	tsp. Torani Sugar-Free Sweetener, unflavored

DIRECTIONS

Place all ingredients in shaker and shake vigorously for 25 to 35 seconds, until egg white is foamy. Then add ice and shake until cold; strain into glasses and garnish with mini spring flowers.

CHOCOLATE
FUDGE
KETO COOKIES

Chocolate Fudge Keto Cookies

Serves 10

INGREDIENTS

½	cup Swerve Confectioners Sweetener
½	cup unsweetened cocoa powder
¼	cup butter, melted
2	large eggs
1	tsp. vanilla extract
1	tsp. baking powder
1	cup almond flour
	Pinch pink Himalayan salt

DIRECTIONS

1 Preheat over to 350°F. Combine sweetener and cocoa powder in mixing bowl. Add butter and combine using a hand mixer.

2 Add eggs, vanilla and baking powder and mix again. Then add almond flour and salt and mix one more time. Batter should be fairly thick.

3 Using your hands, form batter into cookies and place on greased baking sheet. They will keep their formed shape while cooking, without expanding too much. Dust with more sweetener, if desired.

4 Bake cookies for 12 to 15 minutes. These freeze well for up to 2 to 3 months.

NUTRITION

Per serving: Calories: 132; Fat: 11.6 g ; Net Carbs: 2 g; Fiber: 2.8 g; Protein: 4.4 g

Recipe courtesy of *ketoconnect.net*

FLUSH IT OUT! NOTHING IS MORE HELPFUL THAN PURE H_2O FOR QUELLING ANNOYING EARLY SIDE EFFECTS.

SIDE-EFFECT City

You've heard the stories. Constipation. Bad breath. "Keto flu." Tales abound about the woes of starting keto—but there are ways you can fight back.

For most people, keto is a jolt to the system. That's because the standard American diet relies heavily on carbs of all kinds—from bread and pizza to hidden carbs in "healthy" foods, like granola and low-calorie frozen entrées. So it's often a big change to switch to mostly homemade foods, especially if you were getting the bulk of your fiber from grains, which are outlawed on keto. Often, the side effects are short-term, as your body adjusts to an entirely different system. But while they're happening, they're no fun. "It's important, if you've never been on a ketogenic diet, to talk to your doctor first," cautions Julie Stefanski, R.D., a specialist in ketogenic dieting. "Plan to start the diet when you don't have a lot of social events and can be low-activity," she adds. Here, Stefanski walks us through what to expect when you start keto and how to weather the storm.

“KETO FLU”

“Just like no one sleeps the same way, shifting from typical metabolism to a state of ketosis is different for everyone,” says Stefanski. For some—an estimated 25 percent—that process makes them feel crappy for a few days, if not a week. Symptoms include fatigue, dizziness and mood swings. If that sounds like substance-abuse withdrawal, it’s not a coincidence. Research has shown similarities between the effects of sugar on the body and brain to the effects of drugs and suggests that, at the neurobiological level, the “rewards” to your brain from taking in sugar are “more robust than those of cocaine,” according to one study.

So if you’ve been loving your candy bars, it’s no surprise that you feel bad when they’re suddenly taken away. Your brain is reeling from losing its “drug,” and your body has become accustomed to getting easy energy from carbs and sugars. “Glucose is your body’s preferred fuel, because it’s so easily accessed,” explains Stefanski. “There may be an interim period where you’re not getting that quick fuel and it takes a little while for your body to process enough fat to give you ketones for energy.”

▶ **THE TREATMENT** Don’t push yourself the first few days. “You’ll have plenty of time later to do hard workouts,” says Stefanski. “For now, your body is adjusting.” Drink lots of fluids and work to get enough vitamins from fresh vegetables, especially high-potassium leafy greens. “After a few days, your body should adapt so you feel more energetic, although for some people it will take longer.”

Load up on vitamin-rich fresh veggies.

“Bulletproof” coffee (java with butter and oil) and tea with lemon can cure keto ills.

DIGESTIVE ISSUES

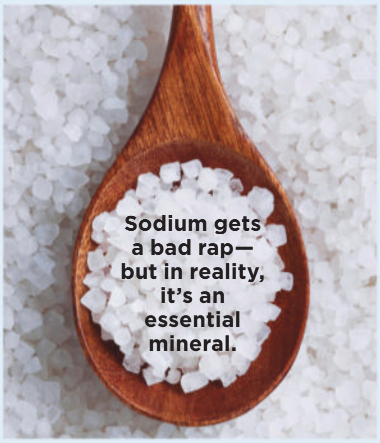
The most common keto problem is constipation—usually from a lack of fiber—but diarrhea can be an issue for some people as well, says Stefanski. The bottom line is that changing your dietary intake so drastically has a profound effect on your gut flora, or microbiome, and that can cause both constipation and its opposite, diarrhea. The job of your microbiome, which is essentially a universe of helpful bacteria, is to keep things moving through your system in a healthy way. When that gets thrown off by a big change—especially if you’re suddenly taking in much more fat—the result can be diarrhea. The microbiome is fed by fiber and many plant foods, and both of those may decrease when you’re switching to keto.

▶ **THE TREATMENT** As with “keto flu,” one of the major antidotes to constipation and diarrhea is hydration. “Make sure you’re drinking a lot of water and also concentrate on adding keto-friendly sources of fiber to your daily meals,” says Stefanski. “Some examples are chia seeds, flaxseed, nuts and seeds, all of which can help with regulating your system.” Some people opt to take a gentle fiber supplement when starting keto, to help the body adjust. Others have found relief by drinking a mixture of hot water with lemon, along with a teaspoon of apple cider vinegar, every morning, which can help boost digestive function.

MUSCLE CRAMPS

When you're in the early days of keto, you may suddenly find yourself experiencing charley horses—that sudden painful knotting of your calf muscle, often at night or the first thing in the morning. This usually is caused by a mineral imbalance as you adjust to keto as well as with dehydration. Minerals like sodium, potassium and magnesium, which are known as electrolytes, are key to regulating nerve and muscle function and maintaining blood acidity: It's all a delicate balance that starts with making sure you're getting enough water. Carbohydrates hold on to water in the cells, so when you withdraw most of the carbs that your body is accustomed to, you can also get low on the minerals in that water. The result? Painful muscle cramps.

▶ **THE TREATMENT Again, drinking a lot of water is at the heart of the matter. But you may also want to take potassium and magnesium supplements, at least at the beginning, says Stefanski. Don't be afraid to salt your food, as sodium will help you retain enough water to hydrate your cells—and relieve your cramps.**



Sodium gets a bad rap—but in reality, it's an essential mineral.

Bad breath is intensified by dry mouth, so go ahead—pour on the water.

BAD BREATH

It's infamous: that strangely sweet or pungent breath odor that happens when you're in ketosis. And it's a real thing; one researcher even created a version of keto sticks that measures ketones by breath rather than urine, because it's completely quantifiable. You are literally exhaling ketones, and one of the ketone bodies produced by your liver is acetone (yes, acetone as in nail-polish remover), an odor that some are alarmed to find themselves breathing out through their mouths. Most people, though, find that any kind of "ketone breath" fades with time—often within a few weeks, if not days.

▶ **THE TREATMENT While you're dealing with "keto breath," you may be tempted to use sugar-free mints or gum, says Stefanski, but these are often not carb-free and may interfere with ketosis. Instead, your best bet is old-fashioned remedies, like being vigilant with flossing and brushing and, especially, making sure to drink enough water. Dehydration is a major cause of bad breath, and when you're just starting keto you may be more prone to dehydration in general.**

HEADACHES

While some people find themselves afflicted with headaches when starting keto, on the opposite end, "a growing body of research is focusing on the benefits of the keto diet on headaches, specifically migraines," says Stefanski. "We're not sure yet whether the improvement is due to the elimination of certain foods that trigger migraines or a change in the way the brain is fueled," she adds. It's intriguing to note, though, that the first use found for ketogenic diets, almost a century ago, was in children with epilepsy that was resistant to treatment. There may be some not-yet-understood way in which a keto diet alters brain chemistry.

▶ **THE TREATMENT For the run-of-the-mill headache, drinking more water and also making sure you're getting enough potassium and sodium may be the key, Stefanski says. That could be as easy as sprinkling a bit of lite salt (a high-potassium salt substitute) on your food. If you're afflicted with migraines, consult with your doctor or a neurologist about whether keto might help.**

KETO
SOUTHWESTERN
BREAKFAST
HASH

GET Inspired!

THE BIGGEST MARKETPLACE of ideas for keto can be found online—in success stories on Instagram, in support groups on Facebook and, especially, in dozens of personal keto blogs that offer advice, recipes and mouthwatering photography. These four favorites deserve a closer look.

CAST IRON KETO

CREATOR
Alex Lester

POINT OF VIEW

Not surprisingly given its name, Cast Iron Keto focuses on hearty fare—game-day foods, like cheesy chicken poppers or popcorn shrimp; or dinners, like Philly-cheesesteak-stuffed peppers. There's even binge-worthy brunch items, like cinnamon rolls. What Alex and his wife and collaborator, Lauren, want to do is "fuel epic adventures," as the site's tagline proclaims. The two aim to present recipes that are "stupidly simple, tasty and—maybe the best part—easy to clean up." When Alex and Lauren met, both were overweight and feeling unhealthy and unhappy. Alex's weakness was Cheetos; Lauren's was Chick-Fil-A. They joined forces and cut out all fast and processed food, which took 80 pounds off Alex's frame. Finding what he calls his "happy spot" with a keto diet has stoked his running, biking, swimming and hiking.

IN HIS WORDS

Q What inspired you to start living keto?

A I started keto when I was training for my first triathlon, and I found that it helped me fuel longer workouts without needing assistance from unhealthy supplements, like gels and other sugar-based products. After the transition period, I had much more energy and endurance than I'd had on the Paleo plan, which was my previous diet.

Q Why did you decide to create a blog?

A My wife had started a popular Paleo food blog a few years earlier. One morning, after a long run, I was making my classic breakfast hash in my cast-iron skillet, and the idea was born—Cast Iron Keto. So we started the blog, with her help on the development of recipes as well as photography.

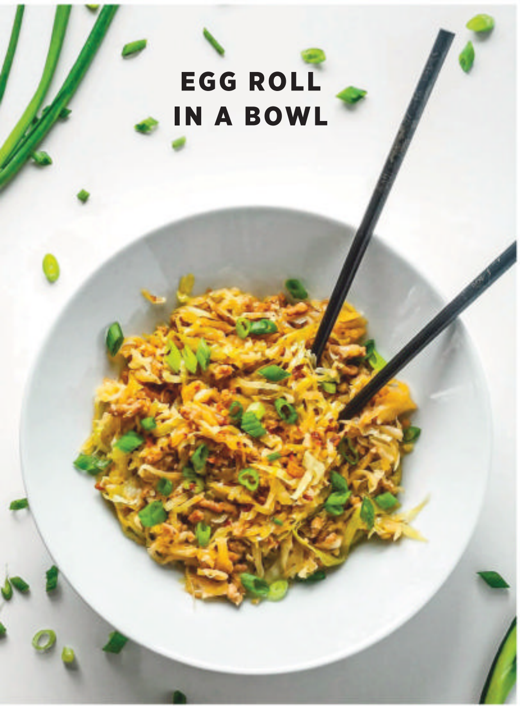
Q What do you hope your readers will take away from Cast Iron Keto?

A That keto doesn't have to be hard or boring. Our recipes are super-simple and require only a single skillet, or sometimes a dutch oven. I'm a true believer that you don't need all sorts of fancy kitchen gear to make delicious recipes that healthfully fuel your body.

Q What's one of your personal favorite recipes?

A I'd have to say, the breakfast hash that started it all (recipe on *castironketo.net*).

> "THIS ISN'T YOUR 'EAT A 42-OUNCE RIB EYE FOR DINNER' STYLE BLOG. I FOCUS ON PLANTS, WILD-CAUGHT PROTEIN AND HEALTHY FATS."



KETOGASM

CREATOR
Tasha Metcalf

POINT OF VIEW

Ketogasm's tagline is "Helping women customize keto," but it could just as well be "Helping women have fun on keto." Metcalf calls her readers "badass ladies" and writes, "Learning about diet and nutrition doesn't have to be SO. SERIOUS." Posts address topics like how the keto diet affects libido and a guide to drinking alcohol on keto. Metcalf mixes her delicious recipes with "unrecipes"—aka, how to throw together easy, no-fuss meals.

IN HER WORDS

Q What inspired you to start living keto?

A I'd had unhealthy eating habits since childhood, which led to hormonal imbalances, fluctuating weight and health issues as an adult. By my early 20s, my doctor gave me a laundry list of medications I should take to treat symptoms of my polycystic ovarian syndrome (PCOS): infertility, acne, amenorrhea, insulin resistance, prediabetes, hypertension, high triglycerides, etc. I was a wreck! Luckily, my doctor was open-minded about diet and lifestyle options and told me about low-carb diets; soon I found keto, and the rest is history.

Q Why did you decide to create a blog?

A It started as a fun, creative outlet. Doing a food blog appealed to me, because I could combine my passions for writing, cooking and photography. After my second pregnancy, I had gained weight from having back-to-back babies and felt like publicly documenting my weight loss would hold me accountable. So at first it was personal—then it evolved into a popular resource for women starting keto and helping others on their journey. I dived deeper into the research and eventually pursued graduate studies in nutrition. Now I've written a book, *Keto: A Woman's Guide*, and also teach nutrition workshops full-time—thanks, in large part, to the blog.

Q What do you hope readers take away from Ketogasm?

A My original goal was to prove that healthy eating doesn't have to be boring. But I also want readers to know there's no one-size-fits-all diet—being flexible, keeping an open mind and finding a way of eating that is sustainable for you are key to making lasting change.

Q What's one of your personal favorite recipes?

A I love the Egg Roll in a Bowl—it's so addictive some people call it crack slaw (recipe on *ketogasm.com*).

MEATFREEKETO

CREATOR
Liz MacDowell

POINT OF VIEW

MacDowell's philosophy of food—and life—can be summed up like this: "I believe that good health is ultimately supported by a good diet and that we are all our own unique snowflakes with different dietary needs." She is certainly no snowflake when it comes to a challenge: Not only has she conquered the unlikely combo of vegan and keto, but she makes it look fun, even easy. MacDowell addresses this conflict right up front, on a page titled "Is a Vegan Ketogenic Diet Possible?" and then walks her readers through a step-by-step program, including shopping lists and protein sources.

BUFFALO
CHICKEN
JALAPEÑO
CASSEROLE

Since she's never met a hurdle she couldn't overcome, MacDowell also blogs about her intermittent fasting plan (18 hours of fasting, six-hour eating window) and her experimentation with eating just one meal a day (OMAD). "Why add OMAD on top of an already kind of challenging, gluten-free, vegan keto diet?" she writes. "Well, why not?"

VEGAN KETO FRENCH TOAST

IN HER WORDS

Q What inspired you to start living keto?

A I had run through almost every diet out there in an attempt to lose a little weight and feel better. I was eating a high-carb, raw vegan diet, and it wasn't working for me. I stumbled on a bunch of posts on a message board about keto and weight loss, and thought I'd try it.

Q Why did you decide to create a blog?

A When I first started keto, there weren't many people doing it as a vegetarian, never mind as a vegan! I started blogging to keep track of recipes I liked or tips I came across. I figured it was a good resource for me and might be helpful to others. It turns out that a lot of people wanted to know more about vegan keto—the site gets around 150,000 hits per month now.

Q What do you hope that readers will take away from Meat Free Keto?

A I hope people see that it's totally possible—and pretty easy—to do keto as a vegan, a vegetarian or just someone with egg or dairy allergies. And I want to show that vegetables have a place in keto—that you don't have to be afraid of adding in more plant foods.

Q What's one of your personal favorite recipes?

A The Vegan Keto French Toast (recipe on *meatfreeketo.com*).

RULED.ME

CREATOR
Craig Clarke

POINT OF VIEW

Clarke's goal, and the source of his blog's name, is to give readers everything they need to "rule" keto. Ruled.me is a one-stop-shopping destination: You'll find a beginner's guide, product recommendations, food lists, advice for eating on a budget and intermittent fasting and more. Clarke also offers what he calls Keto Academy, including 30-day meal plans, shopping lists, his three cookbooks and a full guide to keto. His aim: help beginners "make keto simple."

IN HIS WORDS

Q What inspired you to start living keto?

A I started when I was a teenager. My whole family was overweight, and my brother was diagnosed with type 2 diabetes. He introduced me to keto—it had helped him lose weight and lower his blood sugar levels. I found that keto worked well for me too—I dropped more than 100 pounds and have maintained that loss for close to nine years.

Q Why did you decide to create a blog?

A When I began keto, the information online was very sparse. I had to spend weeks uncovering information from various websites and forums. There were barely any recipes available either. Since I had success with keto and really believed in it, I thought there should be a better resource out there for people starting out.

Q What do you hope readers take away from *Ruled.me*?

A My ultimate goal is to make keto easy to understand and begin. From guides to recipes to meal plans and shopping lists, there's an article for all things keto on our website!

Q What's one of your personal favorite recipes?

A I prefer simpler meals that are easy to clean up. My go-to is a casserole, and the Buffalo Chicken Jalapeño never fails (recipe on *ruled.me*).

7 Days of Keto

Overwhelmed? Need inspiration? Just getting started? Streamline a week's worth of keto with this mix-and-match meal plan.

All recipes courtesy of *DietDoctor.com*

EGG MUFFINS, PAGE 85

TIP

These are just as good for lunch! Simply add a side salad.

BONUS RECIPE!

Spend your Sunday morning getting ahead of the game by making a fleet of egg muffins for the coming week. They're fine in the refrigerator for three to four days and can also be frozen. Grab a couple for an instant meal.

Monday

BREAKFAST **Bulletproof Coffee**
1 cup fresh brewed coffee, blended with 1–2 Tbsp. unsalted butter and 1 Tbsp. MCT oil or coconut oil until smooth and frothy.

LUNCH **Charcuterie Plate**
Sliced roast beef, cheddar wedges, sliced salami, sliced radishes, ½ avocado, scallions, mayo and mustard on the side.

DINNER **Fried Salmon with Asparagus**

Serves 2, or 1 plus leftovers

INGREDIENTS

8 oz. green asparagus
3 oz. butter
9 oz. salmon
Salt and pepper

DIRECTIONS

1 Rinse and trim asparagus.

2 Heat half the butter in frying pan big enough to hold both fish and vegetables.

3 Fry asparagus over medium heat for 3 to 4 minutes. Season with salt and pepper. Move the asparagus to one side of the frying pan.

4 Add remaining butter and fry salmon for a couple of minutes per side. Stir the asparagus now and then. Lower heat toward the end.

5 Season and plate salmon and asparagus, topping with any remaining butter from the pan.

NUTRITION

Per serving: Calories: 590; Fat: 52 g; Net Carbs: 2 g; Fiber: 2 g; Protein: 28 g

Alternate having Bulletproof Coffee and a cooked breakfast every other day, for maximum keto results!

TIP
Eating dinner solo? Have the leftovers for breakfast or lunch tomorrow!

FRIED SALMON WITH ASPARAGUS

Tuesday

BREAKFAST **Eggs and Asparagus**
1 or 2 hard-boiled eggs, garnished with mayo, with leftover or steamed asparagus stalks on the side.

LUNCH **Salad with Salmon**
Greens topped with salmon, ½ avocado, sliced scallions, grape tomatoes.

DINNER **Bacon-Wrapped Burgers**

Serves 2, or 1 plus leftovers

INGREDIENTS

For Burgers

3½	oz. bacon
10	oz. ground beef
1	Tbsp. cold water
1	tsp. chili paste
½	tsp. garlic power or onion powder
½	tsp. salt
¼	tsp. ground black pepper
½	Tbsp. olive oil

For Serving

1½	oz. dill pickles
1½	oz. sliced cheddar cheese
1½	oz. lettuce
1	tomato, sliced
½	red onion, sliced
⅓	cup mayonnaise

DIRECTIONS

1 Put aside 1 slice bacon for each burger and then finely chop the remaining slices.

2 Mix together ground beef, water, chili paste, chopped bacon and spices. Shape the burgers, using wet hands to avoid sticking.

3 Wrap bacon slice around each burger. Use a brush to apply olive oil to meat, then grill (or fry in pan over medium-high heat) each side for 5 to 10 minutes, or until cooked through.

4 Serve with pickles, cheddar cheese, lettuce, tomato, onion and a dollop of mayo.

NUTRITION

Per serving: Calories: 895; Fat: 76 g; Net Carbs: 7 g; Fiber: 2 g; Protein: 42 g

TIP
For variety, switch up the meat by using ground lamb, turkey, a mix of pork and beef, or even wild boar or bison, if available.

BACON-WRAPPED BURGERS

TIP

Make your own ranch seasoning and add it to mayo or sour cream for dressings and dips—it keeps well in a jar with a tight-fitting lid. Combine 2 Tbsp. dried tarragon, 2 Tbsp. dried parsley, 2 Tbsp. dried dill, 1 Tbsp. garlic powder, 1 Tbsp. onion powder, 1 Tbsp. sea salt, ½ Tbsp. ground black pepper.

COBB SALAD WITH RANCH DRESSING

Wednesday

BREAKFAST Bulletproof Coffee (See Monday)

LUNCH Leftover Burger or Charcuterie Plate (See Monday)

DINNER Cobb Salad with Ranch Dressing

Serves 1

INGREDIENTS

For Salad

½	rotisserie chicken
1	hard-boiled egg, roughly chopped
1½	oz. bacon, fried and chopped
1	oz. blue cheese, crumbled
½	avocado, chopped
½	tomato, sliced
3	oz. salad greens
½	Tbsp. fresh chives, chopped (optional)
	Salt and ground black pepper, to taste

For Easy Ranch Dressing

1½	Tbsp. mayonnaise
½	Tbsp. ranch seasoning (See Tip)
1	Tbsp. water
	Salt and ground black pepper

DIRECTIONS

1 Cut chicken into bite-size pieces (if you're starting with raw chicken rather than rotisserie, fry it in the bacon fat).

2 Combine dressing ingredients and set aside.

3 Make a bed of salad greens and top with all remaining ingredients.

4 Drizzle with dressing and top with chives, if desired.

NUTRITION

Per serving: Calories: 1,161; Fat: 97 g; Net Carbs: 7 g; Fiber: 8 g; Protein: 61 g

ITALIAN MEATBALLS WITH MOZZARELLA

TIP
Like them spicy? Swap out half the ground beef for hot Italian sausage, then sprinkle in hot red-pepper flakes to taste.

Thursday

BREAKFAST Bacon and Eggs
Fry 2 bacon slices, remove; fry 2 eggs and a few halved grape tomatoes in bacon grease. Top with parsley.

LUNCH Buffalo Chicken Wraps
Shred leftover rotisserie chicken, top with blue cheese and hot sauce and wrap in lettuce leaves.

DINNER Italian Meatballs with Mozzarella

Serves 2, or 1 with leftovers

INGREDIENTS

½	lb. ground beef
1	oz. grated Parmesan
½	egg
½	tsp. salt
½	tsp. garlic powder
¼	tsp. dried basil
¼	tsp. onion powder
¼	tsp. ground black pepper
1½	Tbsp. olive oil
7	oz. canned whole tomatoes
1	Tbsp. finely chopped fresh parsley
1	oz. butter
3½	oz. fresh spinach
2½	oz. fresh mozzarella cheese, torn into bite-size pieces
	Salt and pepper, to taste

DIRECTIONS

1 Place ground beef, Parmesan, egg, salt and spices in bowl; blend thoroughly with wet hands, forming into meatballs, about 1 oz. each.

2 Warm olive oil over medium heat in large skillet and sauté meatballs until golden brown on all sides.

3 Lower heat and add canned tomatoes. Let simmer for 15 minutes, stirring every few minutes. Add parsley and season with salt and pepper, to taste.

4 Melt butter in separate frying pan and cook spinach for 1 to 2 minutes, stirring continuously. Add spinach to meatballs and top with torn mozzarella cheese.

NUTRITION

Per serving: Calories: 625; Fat: 49 g; Net Carbs: 4 g; Fiber: 3 g; Protein: 39 g

Friday

BREAKFAST Bulletproof Coffee
(See Monday)

LUNCH Zoodles with Meatballs
Warm up zucchini noodles and top with leftover meatballs or a quick red sauce made with ground beef and canned crushed tomatoes.

DINNER Taco Meatza

Serves 2, or 1 plus leftovers

INGREDIENTS

For Crust

11	oz. ground chicken
1	egg
1	Tbsp. Tex-Mex seasoning (See Tip)
¾	tsp. salt
1	Tbsp. olive oil

For Topping

3	Tbsp. salsa
5	oz. Mexican cheese
2	Tbsp. pickled jalapeños

For Serving

1	avocado, thinly sliced
¼	red onion, thinly sliced
½	cup sour cream
2	Tbsp. fresh cilantro (optional)
½	lime (optional)
1	tsp. red chili peppers (optional)

DIRECTIONS

1 Preheat oven to 400°F. In bowl, mix meat with egg, spices and oil.

2 Line baking tray with parchment paper and spread meat in 2 thin, flat, 6-inch circles. Bake for 10 minutes.

3 Remove and top with salsa, cheese and jalapeños. Bake 10 to 15 minutes.

4 Remove from oven and top with sour cream, onion and avocado slices. Sprinkle with cilantro, lime and peppers, if desired.

NUTRITION

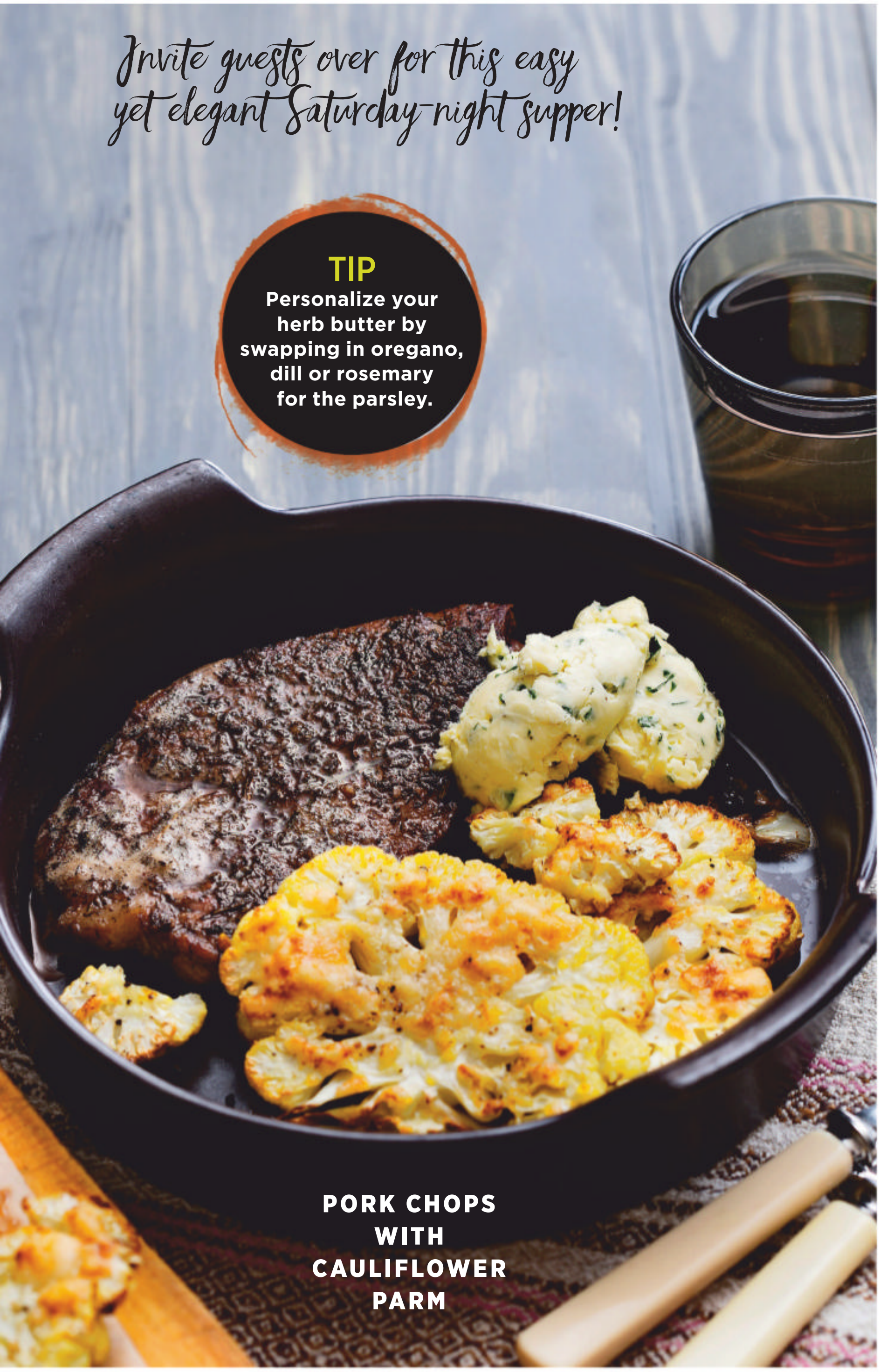
Per serving: Calories: 875; Fat: 69 g; Net Carbs: 10 g; Fiber: 9 g; Protein: 51 g

Can't choose between tacos and pizza? Get the best of both with this mashup.

TACO MEATZA

TIP

Make your own (sugar-free!) Tex-Mex seasoning—it's also great as a rub for meat or poultry. Combine 1 Tbsp. chili powder, 2 tsp. paprika, 2 tsp. ground cumin, 1 tsp. garlic powder, 1 tsp. onion powder, ½ tsp. chili flakes, ½ tsp. ground black pepper, pinch ground cinnamon, pinch ground cloves, 1 Tbsp. sea salt (optional).



Invite guests over for this easy yet elegant Saturday-night supper!

TIP
Personalize your herb butter by swapping in oregano, dill or rosemary for the parsley.

PORK CHOPS WITH CAULIFLOWER PARM

Saturday

BREAKFAST Ham and Cheese Omelette

Whisk 2 or 3 eggs and cook in melted butter in frying pan, adding chopped ham, grated Swiss cheese and optional chopped green pepper and onion; fold into omelette.

LUNCH Leftover Taco Meatza or Salad with Chicken

For salad: Top mixed greens with cut-up rotisserie chicken, ½ avocado and chopped tomato.

DINNER Pork Chops with Cauliflower Parm

Serves 4

INGREDIENTS

For Herb Butter

4	oz. butter, at room temperature
1	garlic clove, minced
1	tsp. lemon juice
⅓	cup fresh parsley, finely chopped
	Salt and pepper

For Pork Chops

4	pork-shoulder chops
1	Tbsp. ranch seasoning (See Wednesday's Tip)
2	oz. butter

For Cauliflower Parmesan

25	oz. cauliflower
2	Tbsp. olive oil
4	oz. Parmesan cheese
	Salt and pepper

DIRECTIONS

1 Mix herb-butter ingredients and set aside.

2 Bring chops to room temperature and rub with ranch seasoning, salt and pepper. Preheat oven to 400°F, preferably with broiler on.

3 Trim and rinse cauliflower and cut into ½-inch slices; place on baking sheet lined with parchment paper. Brush slices with olive oil on both sides and season with salt and pepper. Sprinkle with Parmesan and bake for 20–25 minutes, until golden brown.

4 Meanwhile, fry chops in butter over medium-high heat until cooked through, about 4 to 5 minutes on each side. Let chops sit for a few minutes before serving; plate each chop with cauliflower on the side and a dollop of herb butter on top or alongside.

NUTRITION

Per serving: Calories: 1,035; Fat: 82 g; Net Carbs: 7 g; Fiber: 4 g; Protein: 65 g

Sunday

BREAKFAST **Bulletproof Coffee**
(See Monday)

Egg Muffins

Serves 6 (2 muffins per serving)

INGREDIENTS

2	scallions, finely chopped
5	oz. air-dried chorizo, salami or cooked bacon, chopped
12	eggs
6	oz. shredded cheese (your choice)
2	Tbsp. red or green pesto (optional)
	Salt and pepper

DIRECTIONS

1 Preheat oven to 350°F. Grease muffin tin thoroughly with butter.

2 Divide chopped scallions and meat and add equal amounts to bottom of each cup.

3 Whisk eggs with seasoning and pesto, if desired. Add cheese; stir.

4 Pour egg mixture evenly into each cup. Bake for 15 to 20 minutes, depending on size of muffin tin. Let cool before wrapping in plastic and storing in fridge or freezer.

NUTRITION

Per serving (2 muffins): Calories: 335; Fat: 26 g; Net Carbs: 2 g; Fiber: 0 g; Protein: 23 g

LUNCH/BRUNCH **Avocado with Salmon**

Halve and pit avocado; fill cavity with sour cream and top with smoked salmon slices. Garnish with chives, chopped scallions or capers.

SUNDAY NIGHT **Wings with Creamy Broccoli**

Serves 4

INGREDIENTS

For Wings

½	orange, juice and zest
¼	cup olive oil
2	tsp. ground ginger
1	tsp. salt
¼	tsp. cayenne pepper
3	lbs. chicken wings

For Broccoli

25	oz. broccoli
1	cup mayonnaise
¼	cup chopped fresh dill
	Salt and pepper, to taste

DIRECTIONS

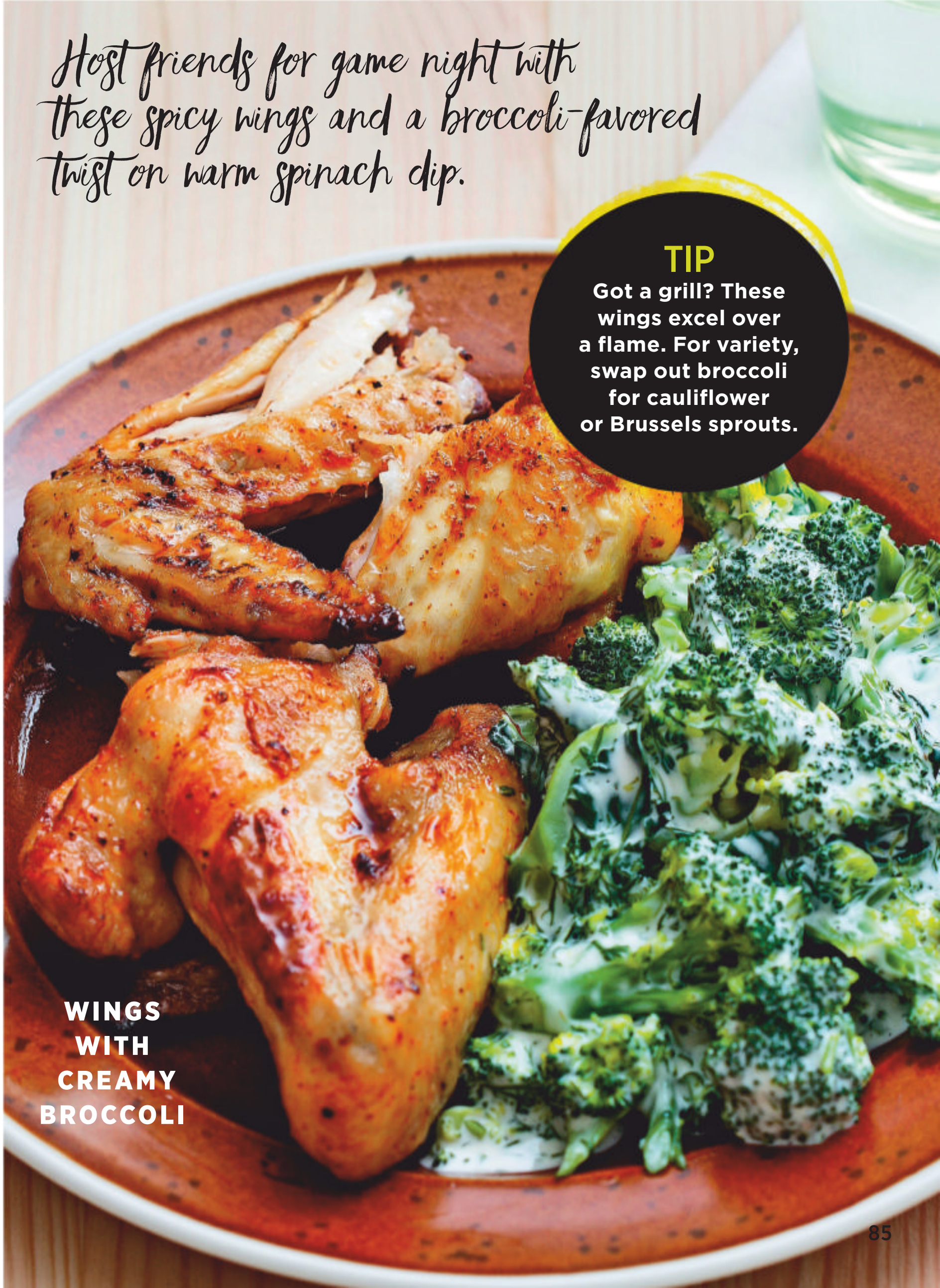
1 Preheat oven to 400°F. Mix orange juice and zest with oil and spices. Place wings in plastic bag and pour in marinade. Shake bag to coat and let marinate for 5 minutes (or more).

2 Bake wings in greased baking dish for about 45 minutes, or until golden brown and cooked.

3 Meanwhile, divide broccoli into florets and parboil in salted water for just 2 minutes, until they soften a little bit but still retain shape and color. Strain broccoli and let some steam evaporate before adding the remaining ingredients. Toss and then serve with baked wings.

NUTRITION

Per serving: Calories: 1,220; Fat: 100 g; Net Carbs: 9 g; Fiber: 5 g; Protein: 65 g



Host friends for game night with these spicy wings and a broccoli-favored twist on warm spinach dip.

TIP
Got a grill? These wings excel over a flame. For variety, swap out broccoli for cauliflower or Brussels sprouts.

WINGS WITH CREAMY BROCCOLI

DEEP-DISH PIZZA

COMFORT FOODS *Made Keto*

Yes, you can eat pizza, mac and cheese, even bread—courtesy of these clever twists and tricks. Dig in!

RECIPES BY MARIA EMMERICH

Deep-Dish Pizza

Craving that crunchy crust—deep-dish, no less—and gooey cheese? This creative solution brings it all together with near-zero carbs.

Serves 4 (one slice each)

INGREDIENTS

6 eggs, separated
½ tsp. cream of tartar
½ cup unflavored whey or egg-white protein powder
3 oz. cream cheese, softened (or reserved yolks, if dairy free)

Toppings (optional)

Low-sugar bottled marinara sauce
8 oz. mozzarella cheese, goat cheese or feta
Italian sausage
Pepperoni
Mushrooms
Onions
Peppers
Olives

DIRECTIONS

1 Preheat oven to 375˚F. Separate eggs. Reserve yolks and whip whites with cream of tartar until very stiff (if possible, use a stand mixer and let run for 5 minutes). Slowly sift in whey or protein powder.

2 Using a spatula, gently fold the cream cheese (or reserved yolks) into whites.

3 Spray lasagna pan or cast-iron skillet with coconut-oil spray and spoon in the mixture. Let bake for 18 minutes.

4 Remove from oven and top with desired toppings, leaving out cheese, if dairy-free. Return to oven and bake until cheese melts and starts to brown. Cut into 4 wedges.

NUTRITION

Per serving, using 8 oz. mozzarella (other toppings not included): Calories: 161; Fat: 11 g; Net Carbs: 1.9 g; Fiber: 0 g; Protein: 13 g

MACARONI
AND
CHEESE

Macaroni and Cheese

You've probably seen the cauliflower-mac version, but it turns out that hearts of palm (from the inner portion of the palm tree) may be an even more perfect stand-in for macaroni. Tossed with a rich cream sauce, they'll make your inner child smile.

Serves 6

INGREDIENTS

For "Macaroni"

2	jars hearts of palm
	water or chicken broth

For Cheese Sauce

¼	cup butter
3	Tbsp. cream cheese
¼	cup beef or chicken broth
1	cup sharp cheddar cheese, shredded
¼	cup Parmesan cheese, shredded
	Sea salt and pepper to taste

For Crunchy Topping

2	Tbsp. butter
½	cup blanched almond flour
½	cup sharp Cheddar cheese

DIRECTIONS

1 Preheat oven to 375°F. Bring large pot of water or chicken broth to a boil. Cut hearts of palm into macaroni noodle shapes and cook in water or broth until tender, about 5 minutes. (Alternatively, this can be done in microwave.) Drain well and pat dry between several layers of paper towel. Transfer hearts of palm to an 8-by-8-inch baking dish that has been coated with olive-oil spray.

2 In saucepan, melt butter over medium heat. Stir in cream cheese and broth. Cook, stirring, for 2 minutes, or until thickened. Reduce heat and add the other cheeses, stirring until they melt. Add salt and pepper, to taste. Remove from heat, pour over hearts of palm and stir to combine.

3 In small bowl, mix the butter and almond flour together until clumpy. Spread evenly on top of the "macaroni" and sprinkle with additional ½ cup cheese. Bake until browned and bubbly hot, about 15 minutes.

NUTRITION

Per serving: Calories: 335; Fat: 29 g; Net Carbs: 2.8 g; Fiber: 2.2 g; Protein: 14 g

Biscuits and Gravy

This taste of Southern cooking works equally well in a hearty breakfast (just add scrambled or fried eggs) or with a Sunday roast-chicken or turkey dinner. The flavor is reminiscent of classic KFC buttermilk biscuits.

Serves 8

INGREDIENTS

For Biscuits

4	egg whites
1	cup almond flour
1	tsp. baking powder
2	Tbsp. very cold butter (cut into pieces) or cold coconut oil
¼	tsp. sea salt
	Optional: 1 tsp. chopped garlic or desired herb or spice

For Gravy

10	oz. pork sausage, crumbled
1	cup cream cheese (or coconut cream, if dairy-free)
1	cup beef or chicken broth
	Sea salt and pepper, to taste

DIRECTIONS

1 Preheat oven to 400°F. Grease cookie sheet or muffin pan with coconut-oil spray.

2 In large bowl, whip egg whites until very fluffy. In separate medium bowl, mix almond flour and baking powder. Cut in the butter and salt (and add garlic or additional herb or spice, if using).

3 Gently fold the flour mixture into egg whites. Dollop the dough onto cookie sheet (or into muffin tin) and let bake for 11 to 15 minutes.

4 Meanwhile, cook sausage in large skillet over medium heat for 5 to 6 minutes or until thoroughly heated, stirring frequently. Gradually add cream cheese and broth, cooking while stirring constantly, until mixture comes to a low simmer and is thick and smooth. Reduce heat to medium-low and let simmer 2 minutes, stirring. Season to taste with salt and pepper. (For a smoother gravy, let cool and then puree in a food processor.)

5 When biscuits are ready, split each in half; place two halves on each of 8 plates and top with about ⅓ cup of the gravy.

NUTRITION

Per biscuit: Calories: 115; Fat: 9.9 g; Net Carbs: 1.9 g; Fiber: 1.5 g; Protein: 2.8 g; per serving of gravy: Calories: 345; Fat: 29.9 g; Net Carbs: 1 g; Fiber: 0 g; Protein: 14.6 g

BISCUITS AND GRAVY

A STAPLE OF SOUTHERN SOUL FOOD, THESE BISCUITS ARE AS TASTY AS THE COLONEL'S.

PROTEIN-NOODLE LASAGNA

FORGET THE COMPLICATED FAUX-NOODLE CONCOCTIONS—THIS LASAGNA HAS A SIMPLE SOLUTION.

Protein-Noodle Lasagna

Another surprising "noodle" replacement: thin-sliced chicken. This brilliant swap makes this three-cheese, beef-and-sausage lasagna the perfect comfort food for a keto-friendly Sunday dinner.

Serves 12

INGREDIENTS

1	lb. Italian sausage
¾	lb. grass-fed ground beef
½	small onion, chopped
2	cloves garlic, minced
1	jar no-sugar marinara sauce
16	oz. ricotta cheese
1	egg
½	tsp. sea salt
¾	lb. mozzarella cheese, sliced
¾	cup Parmesan cheese
	Thinly sliced organic deli chicken breast (the "noodles")

DIRECTIONS

1 Preheat oven to 425°F. In Dutch oven, cook sausage, ground beef, onion and garlic over medium heat until well browned. Stir in marinara sauce.

2 In mixing bowl, combine ricotta cheese with egg and salt.

3 *To assemble*: Spread 1½ cups meat sauce in the bottom of a 9-by-13 inch baking dish. Arrange layer of chicken slices over meat sauce and spread with half the ricotta cheese mixture. Top with one-third of the mozzarella slices. Spoon 1½ cups meat sauce over mozzarella and sprinkle with ¼ cup Parmesan.

4 Repeat layers, then top with remaining mozzarella and Parmesan cheese. Cover with foil (to prevent sticking, spray foil with cooking spray or make sure foil doesn't touch the cheese).

5 Bake for 25 minutes. Remove foil and let bake an additional 25 minutes. Let cool for 15 minutes before serving.

NUTRITION

Per serving: Calories: 400; Fat: 28 g; Net Carbs: 5.9 g; Fiber: 0.5 g; Protein: 30 g

Keto Bread

Yep, bread! You can make that BLT you've been jonesing for. This loaf is so light and fluffy, it almost seems like a nostalgic recreation of Wonder Bread—and it toasts up beautifully.

Serves 18

INGREDIENTS

12	eggs (use real eggs; egg whites in a carton won't whip well enough)
½	cup unflavored egg-white protein (or ¾ to 1 cup whey protein)
½	tsp. onion powder (optional)

DIRECTIONS

1 Preheat oven to 325°F. Separate eggs, reserving the yolks. Whip whites for a few minutes until very stiff—at least several minutes on high in a stand mixer.

2 Gently mix protein powder into whites. Then slowly fold in reserved egg yolks (and onion powder, if using), making sure whites don't fall.

3 Grease a bread pan with coconut-oil spray and fill with "dough." Bake for 25 to 30 minutes, or until golden brown.

4 Let cool completely before slicing , or bread will fall. Store unused slices in the freezer for spur-of-the-moment sandwiches.

NUTRITION

Per slice: Calories: 49; Fat: 2.9 g; Net Carbs: 0.5 g; Fiber: trace; Protein: 5.2 g

KETO BREAD

NOTE

If your loaf falls after cooking, try cooking at 400°F for an hour. Some protein powders require more time and higher temps.

Savory Snacks

Need a nosh?
These keto bites are
the best bets.

DEVILED
EGGS

SOME PEOPLE SAY they're so sated by the high fat content of a keto diet that they don't even crave snacks. Other people, not so much. Whether the urge strikes you often, sometimes or rarely, here are some satisfying ideas. Whip something up or reach for a high-quality packaged option.

Store-Bought

Choose carefully, advises Craig Emmerich, cofounder of *keto-adapted.com*. “There are a lot of keto products on the market that may say they’re keto, but contain artificial colors and flavorings or hidden sugars,” he explains. “Check the label—if an ingredient ends in ‘ose,’ like ‘dextrose,’ it’s a sugar.” Here, some good on-the-go options.

EPIC
100%
CHICKEN

Epic Chicken Sriracha Bar

Rich in protein and with zero net carbs, this spicy snack is made from cage-free, antibiotic-free, certified humane-raised chicken. *epicprovisions.com*
CALORIES: 100; **FAT:** 5 g; **NET CARBS:** 1 g; **FIBER:** 2 g; **PROTEIN:** 11 g

Perfect Keto Nut Butter Packets

Ready to toss in your handbag or tuck into a pocket to fuel a hike, these two-tablespoon squeezable packets contain a mix of raw macadamias and almonds, coconut butter, MCT oil, vanilla bean powder and sea salt. *perfectketo.com*
CALORIES: 200; **FAT:** 19 g; **NET CARBS:** 2 g; **FIBER:** 4 g; **PROTEIN:** 4 g

Keto Carne Beef Jerky

Made from premium cuts of 100 percent USA beef with extra fat and marbling, these meaty snacks contain, in addition, just seasonings and water—and zero carbs. *ketocarne.com*
CALORIES: 90; **FAT:** 2.5 g; **NET CARBS:** 0 g; **FIBER:** 0 g; **PROTEIN:** 16 g

4505 Meats Chicharrones Fried Pork Rinds

“Go Pig or Go Home” is 4505’s slogan for its pork rinds made from humanely raised animals without added antibiotics or hormones. The company offers five flavors: Smokehouse BBQ, Jalapeño Cheddar, Classic Chili & Salt, Sea Salt and En Fuego. *4505meats.com* **CALORIES:** 80; **FAT:** 5–6 g; **NET CARBS:** 0 g; **FIBER:** 0 g; **PROTEIN:** 7–9 g

Homemade

It’s almost as easy to create your own snacks as it is to buy them, says Matt Gaedke of *ketoconnect.net*. “Cheese, Brazil nuts, hard-boiled eggs, olives, dark chocolate—all these are high in fat and will keep you satisfied until your next meal.” And if you have a few minutes to throw something together, try these delicious appetizers.

Easy Cheese Dip

Mix 1 cup each of sour cream and full-fat yogurt, then add 4 oz. crumbled feta or blue cheese. Scoop with raw veggies, protein chips or pork rinds. Serves 6.
CALORIES (dip only): 242; **FAT:** 20 g; **NET CARBS:** 5 g; **FIBER:** 0 g; **PROTEIN:** 11 g

Avocado Hummus

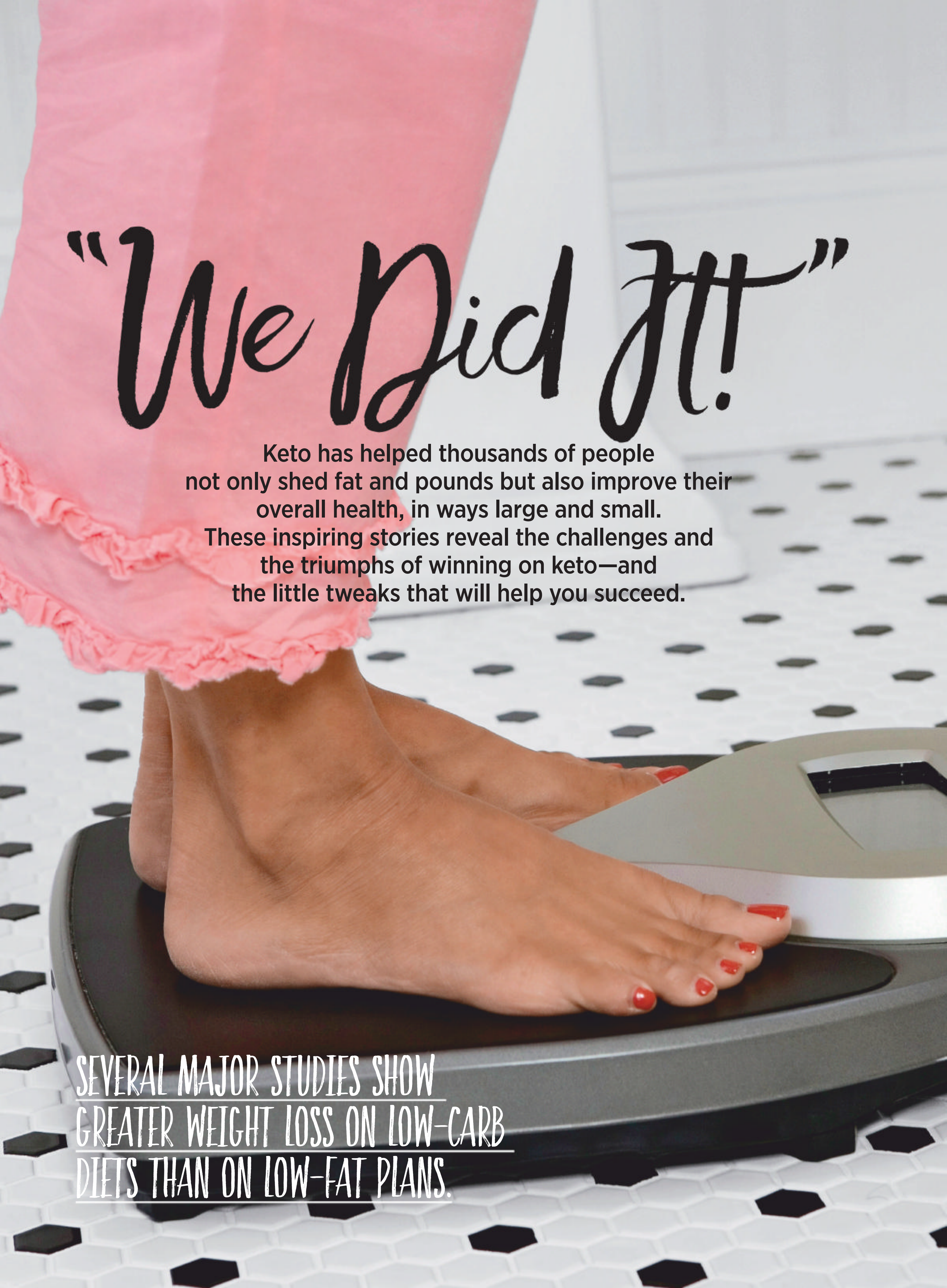
Blend 3 avocados with 1/2 cup olive oil, 1/4 cup tahini, 1/2 cup fresh cilantro, juice of 1/2 lemon, 1 clove minced garlic, 1/2 tsp. cumin and 1/4 cup sunflower seeds until smooth. Great as a dip or a spread for lettuce-wrap sandwiches. Serves 6. **CALORIES:** 415; **FAT:** 41 g; **NET CARBS:** 4 g; **FIBER:** 8 g; **PROTEIN:** 5 g

Spinach Dip

Blend 2 oz. frozen spinach (thawed), 2 Tbsp. olive oil, 4 Tbsp. sour cream and 1 cup mayo. Sprinkle in salt, pepper, and herbs like dried parsley and dill to taste, squeeze 1/2 lemon over top. Serves 6. **CALORIES:** 320; **FAT:** 34 g; **NET CARBS:** 2 g; **FIBER:** 1 g; **PROTEIN:** 1 g

Deviled Eggs

Easiest recipe ever: slice 6 hard-boiled eggs lengthwise, scoop out yolks and mash with 1/3 cup mayo and 1 Tbsp. Dijon mustard. Spoon mash back into whole eggs, sprinkle with paprika, salt and pepper. Fancy it up, if desired, with optional toppings like bacon cracklings, smoked salmon, olive tapenade, chopped chives or a dollop of your favorite dip. Serves 6. **CALORIES** (without additional toppings): 180; **FAT:** 17 g; **NET CARBS:** 5 g; **FIBER:** 0 g; **PROTEIN:** 6 g



"We Did It!"

Keto has helped thousands of people not only shed fat and pounds but also improve their overall health, in ways large and small. These inspiring stories reveal the challenges and the triumphs of winning on keto—and the little tweaks that will help you succeed.

SEVERAL MAJOR STUDIES SHOW GREATER WEIGHT LOSS ON LOW-CARB DIETS THAN ON LOW-FAT PLANS.

BEFORE

AFTER

DANIELLE FRISBY

AGE 39
HEIGHT 5′7″
STARTED KETO JULY 2018
STARTING WEIGHT 210
CURRENT WEIGHT 165

HER STORY I never really had to worry about my weight when I was growing up. But after having two kids, the baby weight just got harder and harder to lose. Meanwhile, my health was suffering from being overweight: I was fatigued constantly and felt like I had no energy to be there for my kids. All I wanted to do was sit on the couch, watch TV and eat. Then, in July of 2018, we went on a beach vacation—and when I saw of photo of myself, that did it for me. I knew I needed to make a change. I was at my heaviest weight ever. Yuck!

I had heard of keto, but honestly, I feared it. I decided to try it anyway, and at the beginning it was really hard. The first few weeks, I felt sluggish, had headaches, had that bad "keto breath" and was also just overwhelmed with trying to figure out what foods were allowed. I'd say the hardest things were giving up my diet soda along with the carbs I was so used to having, like pasta and breads. Holiday gatherings were tough at first too.

Once my system got flushed of glucose though, everything changed. I realized that keto can actually be super-easy, because there are so many great things you can eat. Cheese, bacon and eggs became my best friends! I started to feel really good, both inside and out. I sleep through the night soundly now, and my health readings have never been better. My energy level is insane, my mental state is clearer, and I can stay active and do things with my family. No more tired-mom brain. The most amazing part though, is the overwhelming feeling of confidence I have now.

FAVORITE FOODS AND RECIPES Chicken Parmesan pizza (the crust is made of chicken), keto cheese buns, stuffed mushrooms, broccoli and cheese casserole, avocados and keto pizza chips.

TIPS AND TRICKS Stay hydrated, get enough sleep and make sure you eat plenty of good fats like avocados, macadamia nuts and MCT oil. Stay consistent and know that slow is good. And put the scale away!

"Find what works for your own body. I love bacon—but I also love asparagus!"

Cheese fan? Melt it over portobello mushrooms.

BEFORE

AFTER

BEFORE

AFTER

JASON AND LAURIE KOR

AGE Jason: 50, Laurie: 45
HEIGHT Jason: 5′8″, Laurie: 5′6″
STARTED KETO Jason: AUGUST 2017, Laurie: JUNE 2017
STARTING WEIGHT Jason: 331 (previously 400-plus), Laurie: 303
CURRENT WEIGHT Jason: 171, Laurie: 145

THEIR STORIES **LAURIE** I started gaining weight in high school and college and continued down a path of emotional eating that only intensified when my husband had chronic health issues and a cancer diagnosis.

JASON I got heavy after high school, and through my cancer treatment and aftermath it just got worse. Finally, it became a choice between life and death. I was in and out of the hospital and was on four shots a day for my diabetes and three different blood-pressure meds. I needed to lose the weight.

LAURIE I wanted to get healthy, break my cycle of binge eating and be able to care for Jason. My mom died suddenly of a heart attack 10 years ago, and I was afraid that would happen to me. So I started on keto six weeks before Jason did, using the Keto-Adapted program, and it was surprisingly easy. I knew the first few days might be rough, but I kept up on my electrolytes and didn't have any adverse symptoms at all.

JASON I was surprised at how well it worked. I struggled with cravings for the first month, then not only did those go away, but I was off my diabetes meds and had normal glucose levels! Eventually I went from being in a wheelchair most of the time when I went out of the house to completing two 5K races and being able to hike, go to the zoo and baseball games; for the first time in 19 years of marriage, our date days were centered around activities rather than food.

LAURIE It's really not hard to stay on the plan, because there's so much more you can eat than what you can't. There's a lot of misinformation out there about keto. The funny thing is, no one questioned me about my food intake when I was over 300 pounds and binge eating—but the moment I cut out carbs, they said I was going to die. The best feeling I have now is the freedom I have from food—it doesn't control me anymore. Also, my self-confidence is through the roof. Keto-Adapted worked so well for me that I took the certification program and am now a keto coach for others!

FAVORITE FOODS AND RECIPES Maria Emmerich's Protein Noodle Lasagna has become my specialty—and no one can even tell it isn't the traditional version! Other favorites are bunless burgers, a good rib-eye steak and bacon-wrapped asparagus.

TIPS AND TRICKS Do your own research before starting and check with your doctor first. When eating out, having a meal plan and options can take away fear of the unknown. Meal preparation is key: If you have something keto-friendly on hand, you're less likely to cave in to temptation or hit the drive-thru.

ADD FAT AND PROTEIN TO GRILLED VEGGIES WITH A BACON WRAP.

Keto's high fat content helps dieters resist cravings.

BEFORE

the
journey
is the
destination

AFTER

PATTY BURN

AGE 55
HEIGHT 5'9"
STARTED KETO DECEMBER 2017
STARTING WEIGHT 323
CURRENT WEIGHT 159

HER STORY I've been heavy my entire life—and 28 years ago, I lost 150 pounds on Weight Watchers, only to gain all of it back plus an extra 20 pounds. Looking back, I think that happened because although I had conquered the physical side of weight, I hadn't dealt with or faced the mental side. Finally, I reached the point where I was popping pharmaceutical pills all day—one to wake up, one to calm my nerves, one for joint pain and inflammation, one for anxiety, one for attention deficit disorder, one for obsessive-compulsive disorder, one for depression and, finally, another one for sleep. I looked in the mirror and saw an extremely lost, depressed and obese me, and I hated it. I knew I was in a downward spiral and that something had to change, fast. This time, I knew I had to deal with personal issues from the past to avoid the regain, so I sought professional help. I had to learn the psychological side of why I had given food so much power over me. And I started keto.

For the first month, while I was detoxing from bad processed food, it was difficult. But after that, I had zero cravings and stuck to it almost obsessively. I never cheated, and I logged every bite in my carb-manager app. By the end of the following July—just seven months later—I had dropped 100 pounds! I've since gone on to lose another 64 pounds. Along the way, there were difficult moments: times when I was down on myself or terrified that I'd gain it all back again. But there have been many more days when I'd go hiking with friends and find myself powering up hills that used to be a struggle or I'd go to bed satisfied, knowing I'd hit my nutritional goals.

My doctor checked my blood panels after the first six months of keto and then again after a year. He was amazed. He said, "I may use you as a case study." My blood pressure had normalized, all my blood levels were normal and all my aches and pains were gone. The year before, we had spoken about a possible knee replacement and carpel tunnel/tendinitis surgery if my weight didn't improve. No need now! And in place of all those pills, I now take one natural daily multivitamin a day. My grandsons love their new "Gaga," who can run and play with them and even get on the ground. I've been given a second chance at life—and this time, I'll fight every food demon, continuing my therapy so that food doesn't control me. Now it's simply an energy source. Bottom line, I finally believe in myself . My new motto is, "Nothing tastes as good as healthy feels."

FAVORITE FOODS AND RECIPES
Wasabi soy sauce almonds, berries, unsweetened Greek yogurt, pickled asparagus (and pickles in general), all kinds of green veggies and nachos made from pork rinds.

TIPS AND TRICKS Weigh yourself only once a month; daily or even weekly can be frustrating and stressful. Make yourself exercise every day, even if it's just getting up and moving around. And believe in yourself, no matter what!

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KETO

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